UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA, Plaintiff, v. PHILIP MORRIS INCORPORATED, et al. Defendants.	Civil Action No. 99-CV-02496 (GK) Next scheduled court appearance: April 15, 2003 **REDACTED FOR PUBLIC FILING**[1]

UNITED STATES' RESPONSE TO JOINT DEFENDANTS' PRELIMINARY PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW REGARDING AFFIRMATIVE DEFENSES

[1]Information designated by Defendants as "Confidential" pursuant to Order #7 and Order #36 in the this action has been redacted. Order #7 allows each Defendant to designate as "Confidential" such information, document or material that it in good faith believes "derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure and use; and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy;" or information otherwise entitled to protection under Rule 26(c) of the Federal Rules of Civil Procedure. Order #36 allows each Defendant to designate as "Confidential" information that is entitled to protection pursuant to Order #7 and meets the further requirement that it is "so proprietary or competitively sensitive that its disclosure to a competitor would cause irreparable competitive injury."

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I. INTRODUCTION

1. Pursuant to Order Nos. 230, 264, 285, and 318, the United States submits this Response ("United States' Response") to the preliminary proposed findings of fact contained within Joint Defendants' Preliminary Proposed Findings of Fact and Conclusions of Law Regarding Affirmative Defenses (filed January 29, 2003). The United States is simultaneously filing a separate Reply to Joint Defendants' preliminary proposed conclusions of law (the "United States' Reply"), as well as a separate Reply to the Preliminary Proposed Findings of Fact and Conclusions of Law by Defendant Liggett Group Inc. Regarding Affirmative Defenses (the "United States' Reply to Liggett").

2. Even a cursory review of Joint Defendants' January filing reveals much of the proposed "factual findings" to be thinly disguised – and improper – legal argument and baseless inflammatory rhetoric. Closer examination of Defendants' lengthy story confirms that Defendants have woven a selective, incomplete, and misleading collection of "facts" to serve the story's single theme – that the United States is largely responsible for Defendants' half-century of fraudulent conduct. As demonstrated herein – as well as in the United States' Reply and the United States' Reply to Liggett – Defendants are incorrect as a matter of law and as a matter of fact.

3. In purported service of their many legally flawed affirmative defenses, Defendants strain in vain to convert every interaction between any branch of the federal government and Defendants over the past fifty years into acquiescence, endorsement, and even active participation in Defendants' fraudulent conduct. The United States demonstrates herein both how Defendants largely ignore the context, and often the very content, of the evidence that

they allege supports them. Indeed, much of the evidence upon which Defendants rely supports the United States' claims.

4. Importantly, Defendants' presentation is largely irrelevant to their liability and is, in many instances, incorrect in fact. This Court has already recognized that the conduct and knowledge of the United States is "at best, of minimal, if any, relevance" to the United States' claim. See Order No. 100, Mem. Op. at p. 6 ("Contrary to the argument of Joint Defendants . . . whether the Government should have better, or more effectively, regulated the activities of the Joint Defendants, is, at best, of minimal, if any, relevance to whether the Joint Defendant were themselves participating in the conspiracy and committing the acts of which they are accused."); see also Report & Recommendation #75 of the Special Master at 12, 14 ("The Government's knowledge of or role in determining whether certain ingredients added to cigarettes constituted a health risk to smokers is not relevant to whether Joint Defendants committed the acts alleged in the Amended Complaint. . . . It is irrelevant whether the Government evaluated, held a position on, or could have better regulated the activities of Joint Defendants."), adopted in relevant part by Order No. 226.

5. Accordingly, an exhaustive, paragraph-by-paragraph response to the nearly 2,200 paragraphs submitted by Joint Defendants is unwarranted and would do little to focus attention on the actual issues pertinent to this action. As such, the United States' failure to respond here to any particular statement in Joint Defendants' filing in no way constitutes, and should not be construed as, an admission by the United States as to truth of the asserted statement. Rather, this Response addresses only certain of Defendants' statements concerning the United States' conduct, and concentrates on the parts of Joint Defendants' submission that

bear on the United States' RICO claims and the United States' request for appropriate equitable and injunctive relief, including disgorgement of Defendants' ill-gotten gains.

II. UNITED STATES' RESPONSE TO CHAPTER TWO

A. Introduction

6. In Chapter Two of their preliminary proposed findings of fact, Defendants devote more than 135 pages to statements that are largely improper legal argument and factual claims that are incorrect and/or irrelevant. As more fully explained in Sections I and X of the United States' Reply to Joint Defendants' Preliminary Proposed Conclusions of Law Regarding Affirmative Defenses, Defendants' legal arguments relating to the conduct of the United States and the Federal Trade Commission, in particular those relating to preemption, estoppel, waiver, and unclean hands, are without merit. In a strained effort to make their affirmative defenses fit the facts of this case, Defendants have fundamentally misrepresented the United States' claims relating to Defendants' deceptive marketing of "low tar" and filtered cigarettes. (For ease of reference, the United States uses the term "low tar" to refer to cigarettes represented by Defendants explicitly or implicitly to deliver lower levels of tar and nicotine as measured by the FTC Method or to otherwise represent a reduced health hazard. Such references include filtered cigarettes and cigarettes and those bearing descriptors such as "low tar," "lowered tar," "mild," "light" and "ultralight.")

7. A point-by-point response to every statement contained in Chapter Two of Defendants' preliminary findings of fact and conclusions of law, many of which are simply legally inappropriate, irrelevant and false, would do little to elucidate matters truly relevant to the claims and defenses in this case. Rather, the United States' Response to Chapter Two of Defendants' preliminary proposed findings does not address every factual or legal inaccuracy of Defendants, but instead focuses on the issues most salient to efficient resolution of this

case and on particularly egregious misrepresentations of Defendants. The main issues addressed herein are:

- Defendants' improper inclusion of legal arguments regarding preemption and estoppel relating to the FTC Method that are logically fallacious and based on factual inaccuracies;

- Defendants' misstatements relating to the FTC Method, including:

  (1) the reasons for the FTC Method;
  (2) the intended purpose of the FTC Method;
  (3) Defendants' public statements relating to the FTC Method;
  (4) Defendants' awareness that smoker compensation produced inaccurately low FTC tar and nicotine yields;
  (5) Defendants' misrepresentations regarding the United States' historical awareness of smoker compensation; and
  (6) Defendants' misrepresentations regarding the United States' public statements relating to the harmful health effects of low tar cigarettes;

- Defendants' false claims that smokers switch to low tar cigarettes for cigarette taste, as opposed to perceived health benefits;

- Defendants' claims of "voluntarily" providing information to consumers relating to low tar cigarettes;

- Defendants' false claims that low tar cigarettes are safer than regular-delivery cigarettes;

- Defendants' unsupported allegations relating to the validity of Monograph 13;

- Defendants' baseless claims of spoliation, suppression of research, concealment and improper document destruction; and

- Improper and irrelevant statements by Defendants in Chapter One of their preliminary proposed findings that relate to the issues in Chapter Two.

8. That the United States does not respond to a particular argument or statement in Defendants' Preliminary Proposed Findings should not be interpreted as indicating in any way that the United States agrees with any arguments or statements by Defendants not specifically

addressed in this Response.

B. The Federal Trade Commission

9. A large portion of Defendants' claims in their preliminary proposed findings relate to regulation of cigarette marketing by the Federal Trade Commission ("FTC") or other governmental bodies. Defendants intimate that their fraudulent conduct over the past fifty years is somehow the responsibility of the United States or the FTC, and vacillate between claims that the United States and the FTC either comprehensively regulated Defendants' conduct (rendering the United States' claims preempted) or failed to adequately regulate Defendants' conduct (rendering the United States subject to estoppel).

10. Defendants again press these claims despite the Court's clear statement in November 2001 that "[c]ontrary to the arguments of Joint Defendants, . . . whether the Government should have better, or more effectively, regulated the activities of the Joint Defendants, is, at best, of minimal, if any, relevance." Memorandum Opinion, Order #100, United States v. Philip Morris, November 14, 2001, at 6.

1. Defendants' Preemption And Estoppel Claims Are Based On Factual Inaccuracies And Logical Fallacies

11. In their estoppel claims relating to enforcement actions by the FTC, Defendants ask the Court to retroactively charge both the United States and the FTC with knowledge of the information that Defendants improperly concealed, then punish the United States for the failure of the United States and the FTC to act on it sooner. Such argument is both legally and factually baseless.

12. Defendants attempt to excuse their fraudulent conduct regarding the marketing of

low tar cigarettes by stating that it is truthfully based on the tar and nicotine yields generated by the FTC Method. JD. PFF, ¶¶ 411-412. This statement clearly misses the point.

13. As outlined in the United States' Preliminary Proposed Findings of Fact, in furtherance of their scheme to defraud the public, the Cigarette Company Defendants purposefully designed their cigarettes to generate tar and nicotine yields under the FTC Method that Defendants knew were an inaccurately low measure of the amount of tar and nicotine that people who smoked their cigarettes would receive. U.S. PFF, § IV.D.2.

14. Defendants then used these inaccurately low tar and nicotine yields as a basis for advertising campaigns intended to assure smokers that the cigarettes they were smoking were less harmful, U.S. PFF, § IV.D.3, and reaped the profits of increased cigarette sales as a result of their deception. U.S. PFF, § IV.D.3.iii. For Defendants to now recast their deceptive and fraudulent conduct as "[t]ruthfully based on tar and nicotine ratings under the FTC Method," JD. PFF, p.198, is tantamount to placing the proverbial finger on the scale and then touting the inaccurate results as truthfully based on the measurements of the scale.

15. In addition, contrary to Defendants' mischaracterizations, the United States' allegations in this case do not include any claims that the FTC Method itself is fraudulent, and do not contain any proposed changes to the FTC Method. As Defendants are well aware, the United States' claims regarding Defendants' deceptive marketing of low tar cigarettes relate principally to Defendants' intentional design of their cigarettes to generate inaccurately low tar and nicotine yields under the FTC Method as compared to the tar and nicotine likely to be received by human smokers, and Defendants' deceptive exploitation of the low FTC tar and nicotine yields and filtration methods in their advertising to convey a health benefit.

16. Nearly identical mischaracterizations of the plaintiff's claims by Philip Morris were rejected by the court in Price, et al. v. Philip Morris, Inc., No. 00-L-112, a case in the Circuit Court of Madison County, Illinois, regarding Philip Morris's deceptive marketing of low tar cigarettes. In its March 21, 2003 Judgment following a bench trial, the Court stated:

> Philip Morris has attempted to mis-characterize Plaintiffs' claims in an attempt to succeed on its affirmative defenses. Plaintiffs' claims in this case are not based upon any challenge to the FTC machine measuring procedures or the tar and nicotine ratings published based upon those testing procedure [sic]. Plaintiffs' claims in this case are related to Philip Morris' specific intentional misrepresentations on the packages of Marlboro Lights and Cambridge Lights. . . . [T]he fact that Philip Morris attempted to defend its fraudulent misrepresentations based upon FTC measurements does not convert Plaintiffs' claims into claims based upon those measurements.

Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 36-37, ¶¶ 122-23. The same is true here.

2. The Need For The FTC Method: Defendants' Explicit, Baseless Health Claims In Their Low Tar And Filtered Cigarette Advertisements

17. Until the mid-1950s, Defendants made baseless statements in their advertising explicitly promising that low tar and filtered cigarettes were less harmful. U.S. PFF, § IV.D.3.c.i. As stated in a 2001 publication of the Institute of Medicine: "When filtered and low-yield cigarettes were introduced into U.S. markets, they were heavily promoted and marketed with both explicit and implicit claims of reducing the risk of smoking. . . . [T]he tobacco companies have appealed to health concerns of smokers at least since 1927. Claims about tar and nicotine levels appeared as early as 1942." Institute of Medicine, "Clearing the Smoke: The Science Base for Tobacco Harm Reduction," NAS, Nat'l Academy Press 1 (2001). Thus, the Cigarette Company Defendants' heavy promotion of low tar and filtered

cigarettes with baseless and explicit health claims both created and drove public demand for low tar and filtered cigarettes. Deposition of David Burns, United States v. Philip Morris, July 22, 2002, 51:10-53:4.

18. As early as August 26, 1958, Clarence Cook Little, Scientific Director of the Tobacco Industry Research Committee ("TIRC"), acknowledged in a letter to the Chairman of TIRC that Defendants' claims of reduced tar and nicotine delivery in their advertisements were perceived as indications of reduced harm. Little acknowledged the danger inherent in such claims, stating: "Although this serious danger exists, I believe that it can and should be eliminated by prompt and unanimous action by the industry" in the form of a statement that Defendants' representations in their advertisements regarding reduced deliveries and filters were "in response to public demand and to nothing else." 1002607478-7481 (emphasis in original).

19. To this day, Defendants have not deviated from this script set forth by Little in 1958. Defendants claim that consumer demand for low tar cigarettes resulted from limited statements of the United States Department of Health and Human Services in the late 1960s-early 1970s relating to low tar cigarettes, and that Defendants only developed and marketed low tar and filtered cigarettes in response to this demand. JD. PFF, pp. 314-15, 199-211. The falsity of this claim is demonstrated by the fact that, as noted above, the Cigarette Company Defendants themselves were making explicit (and baseless) health claims relating to their low tar and filtered cigarettes from the early twentieth century through the 1950s. Deposition of David Burns, United States v. Philip Morris, July 22, 2002, 51:10-53:4.

20. The deceptive nature of the Cigarette Company Defendants' baseless health claims

in their advertising eventually led the FTC to prohibit tar and nicotine claims and other claims of health benefit in cigarette advertising unless those claims were supported by valid scientific evidence.

21. The FTC prohibited representations regarding tar and nicotine ratings until it established a uniform method for tar and nicotine reporting.

3. The FTC Method

22. The uniform testing method adopted by the FTC, referred to as the "FTC Method," was first implemented in 1967. Expert Report of Jack Henningfield in United States v. Philip Morris.

23. This testing method, based on a test first described by the American Tobacco Company in 1936, became known as the FTC Method. U.S. PFF, ¶ 955; Expert Report of Jack Henningfield in United States v. Philip Morris. Following the implementation of the FTC Method as a uniform testing method for cigarette deliveries, the FTC allowed tar and nicotine ratings.

24. Defendants' preliminary proposed findings gloss over these reasons for the FTC's conduct, instead casting this progression as a dramatic shift in position on the part of the FTC. JD. PFF, ¶¶ 315-329.

25. In establishing the FTC Method, it was understood that, while the Method was intended to provide a useful measure of the amount of tar and nicotine that particular brands generate when smoked in a uniform fashion, the standardized FTC test Method would not exactly represent the amount of tar and nicotine that any particular smoker would ingest. 1000309929-9932, 03531981-1986.

4. Defendants' Misstatements Regarding The FTC Method

26. Defendants make the oversimplified claim that, because it was understood that the FTC Method does not exactly replicate the tar and nicotine intake of any particular smoker, the FTC acknowledged and intended that tar and nicotine yields under the FTC Method bear no relation whatsoever to the amounts of tar and nicotine that a human smoker ingests. JD. PFF, ¶¶ 334, 342-344.

27. This claim by Defendants is clearly false and defies reason. If the yields under the FTC Method were intended to bear absolutely no relationship to human smoking, it would be of no utility whatsoever and would not have comprised the "uniform and reliable testing procedure" that Defendants themselves acknowledge was sought by the FTC. JD. PFF, ¶ 324. As stated by the FTC in 1983, "If consumers avoid blocking ventilation holes, cigarettes smoked in the same fashion will yield 'tar', nicotine, and carbon monoxide in general accordance with their relative FTC rankings." 03573029-3030 at 3029.

28. Thus, although the FTC Method was not meant to perfectly represent the tar and nicotine intakes of any particular individual, it was intended to be a representative approximation of the amount of tar and nicotine generated by cigarettes when smoked under identical conditions. As a result, Defendants' claim that the FTC and Defendants told the world that it did not measure human smoking is both an oversimplification and a half-truth. While it was understood that the FTC Method (and any standardized method) would not be a perfect measure of the amount of tar and nicotine that a particular smoker would inhale from any particular cigarette, it was nonetheless entitled to provide a useful comparison of the

quantum of tar and nicotine that smokers would receive.

29. In their Proposed Findings, Defendants include a block quote which they claim supports their contention that the FTC Method was not meant to bear any relationship to the amount of tar and nicotine received by smokers. JD. PFF, ¶ 346. Defendants' block quote omits several paragraphs without any indication by ellipses or otherwise. Among these omitted paragraphs is evidence showing that, while the FTC contemplated numerous potential variations in smoking behavior that could affect tar and nicotine yields, the possibility that addiction of smokers to nicotine would cause them to smoke low tar cigarettes more aggressively to satisfy their nicotine addiction – and thereby inhale more tar and nicotine in the process (i.e., smoker compensation) – was not among them:

> No two human smokers smoke in the same way. No individual smoker always smokes in the same fashion. The speed at which one smokes varies both among smokers, and usually also varies with the same individual under different circumstances even within the same day. Some take long puffs (or draws); some take short puffs. That variation affects the tar and nicotine quantity in the smoke generated.
>
> Even with the same type of cigarette, individual smokers take a different number of puffs per cigarette depending upon the circumstances. When concentrating, or talking, the number of puffs is usually less. When listening, or required to listen to another person talking, the number of puffs per cigarette, as well as duration of each puff, usually increases. Smoking rates while reading a book may differ from smoking rates while viewing a television program. The number of puffs and puff duration (as well as butt length) will vary according to emotional state. Some smokers customarily put their cigarettes down in an ashtray where they burn between puffs; other smokers constantly hold cigarettes in their mouths; others hold them between their fingers.

1000309929-9932 at 9930-9931. In addition, the FTC made this statement in 1967, when much

of the evidence confirming nicotine addiction was not yet known by the United States or the

FTC.

30. Defendants resisted implementation of the FTC Method in the mid-1960s and claimed that it would not be accurate. However, Defendants withheld their knowledge that the reason that the method could yield misleading data was that nicotine addiction would drive smokers to achieve relatively stable nicotine intakes through the mechanism of smoker compensation. Expert Report of Jack Henningfield in United States v. Philip Morris. Instead, the Cigarette Company Defendants began designing their cigarettes to take advantage of smoker compensation, so that their cigarettes would yield inaccurately low tar and nicotine deliveries under the FTC Method, but deliver much more tar and nicotine to smokers. U.S. PFF, § IV.D.2.

31. Defendants cite to a Tobacco Institute press release from 1967 relating to the FTC's implementation in which they claim that they stated that "per cigarette" tar and nicotine yields would be "useless and misleading." JD. PFF, ¶ 347. What Defendants do not inform the Court regarding the 1967 Tobacco Institute statement is that the press statement identified three reasons that the test may be inaccurate; none of these reasons related to smoker compensation. 1005112225-2228.

32. The three aspects of the FTC Method that Defendants' press release claimed rendered the FTC Method tests inaccurate were: (1) that the cigarettes were smoked to a twenty-three millimeter butt length (Defendants proposed a longer butt length, which would have resulted in lower tar and nicotine ratings); (2) the FTC planned to test 100 cigarettes of each brand to achieve the tar and nicotine yield measurements (Defendants proposed that more than 200 of each cigarette be tested); and (3) Defendants argued that tar and nicotine

yields should be reported on a "per puff" basis, as well as a "per cigarette" basis. 1005112225-2228.

33. Defendants' claim for the need for "per puff" tar and nicotine ratings was that, "for those who do not regularly smoke the entire cigarette," the measurements may "be deceptive because a smoker may assume his cigarette is delivering the amount of 'tar' and nicotine reported by the FTC when in fact it will be delivering much less, the way he smokes." 1005112225-2228 at 2225-2227 (emphasis added).

34. In their claim that "[i]t is doubly ironic that the Government in this case charges the Defendants with taking advantage of the FTC method to perpetuate a RICO fraud scheme when it was the American manufacturer defendants who criticized the limitations of the FTC Method when it was announced," JD. PFF, ¶ 347 (emphasis in original), Defendants fail to mention that the modifications to the FTC Method that Defendants proposed would have resulted in FTC tar and nicotine yields that were even lower, and therefore even more deceptive. Thus, Defendants' claim of double irony is, itself, ironic.

35. Notwithstanding Defendants' extensive knowledge that smoker compensation would result in delivery of greater amounts of tar and nicotine to smokers than the FTC Method indicated, U.S. PFF, ¶¶ 905-985, the Tobacco Institute press release that Defendants champion as an indication of their candor contains no mention of either compensation or the potential that higher levels of tar and nicotine than those reported by the FTC Method would be delivered to smokers.

36. As they withheld their extensive knowledge that, due to nicotine addiction, smokers who smoked cigarettes with lower machine-derived tar and nicotine deliveries under

the FTC Method would receive much more tar and nicotine than the FTC Method reported, Defendants designed cigarettes and marketed cigarettes that would exploit smoker compensation, thereby rendering the FTC tar and nicotine yields for their low tar and nicotine cigarettes deceptively low. U.S. PFF, § IV.D.1.b-2.

37. Defendants then exploited these deceptive tar and nicotine yields in advertising to imply that their low tar cigarettes were less harmful. U.S. PFF, § IV.D.3. The 1988 Surgeon General's Report cited "cigarette advertising implying that low-yield brands are less hazardous or safe" as a likely cause of consumer beliefs that low tar cigarettes were less harmful. The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General 566 (1988).

5. Potential Changes To The FTC Method

38. Defendants next claim that, by the 1980s, both the FTC and "public health authorities" agreed that the FTC Method should be reviewed and modified. JD. PFF, ¶¶ 371-377. It is unclear to whom Defendants refer by the term "public health authorities." To the extent Defendants intend "public health authorities" to refer to entities other than the United States and the FTC, their statements are clearly irrelevant to their affirmative defenses, and should be discarded.

39. With regard to the United States and the FTC, neither of the documents cited by Defendants even indicates that the FTC Method should be modified; they only show that possible modifications should be considered "in view of today's different cigarette." HHS137 1139-1185 at 1151. The statement that Defendants put forth in support of their allegation of some agreement that review and modification of the FTC Method was necessary is their

identification of three issues on which the FTC requested comments in 1983. JD. PFF, ¶ 372. In the report to which Defendants refer, the FTC actually sought comment on seven issues. On the seventh issue, the FTC invited input on the following questions:

> Should the Commission further examine the implications for its testing program of the issues raised by compensatory smoking behavior, including hole blocking, when consumers smoke lower "tar" cigarettes? What is the evidence that smokers use higher "tar" cigarettes differently than lower "tar" cigarettes? What is the evidence regarding the extent of hole blocking by smokers of different ventilated filter cigarettes? How does behaviorally reduced air dilution affect the relative rankings of various brands? Are there problems regarding compensatory smoking behavior which are significant enough to warrant further exploration of changes in the method, beyond those necessitated by the Commission's findings concerning Barclay? What lines of inquiry would generate the most useful information if such an examination is undertaken?

03573029-3030 at 3030. This document shows that, contrary to Defendants' representations, there was no decision that modifications to the FTC Method were necessary, but merely consideration as to whether it would be advisable to consider any possible modifications to the FTC Method.

40. This FTC Request for Comment also shows that, as of 1983, the FTC did not have an understanding of compensation or that it occurred, but was at that time only examining the potential that smokers smoked low tar cigarettes differently than high tar cigarettes. This is significant when one considers that Defendants were aware of compensation as early as the late 1960s and early 1970s, and, as of 1983, Defendants had a very sophisticated understanding of compensation, U.S. PFF, ¶¶ 905-954, which greatly exceeded the FTC's knowledge of the potential for compensation and the primary role of nicotine therein. This illustrates the fallacious nature of Defendants' statements that, when the FTC Method was established, "neither the FTC, public health authorities nor the cigarette manufacturers could

yet fully appreciate how smokers would react in the real world to lower tar and nicotine cigarettes," but that "[e]xperience has shown" that smoker compensation occurs in response to reduced tar and nicotine deliveries. JD. PFF, ¶ 351.

41. Defendants make several other misrepresentations regarding their statements with respect to the FTC Method. For example, Defendants cite to a July 2, 1984 letter from Samuel B. Witt, III, Vice President, General Counsel and Secretary of R.J. Reynolds, to the FTC stating that "it now appears that the health organizations are urging upon the Commission the same position taken by RJRT when the Commission first adopted its cigarette testing program in 1967 – that is, that the numbers derived from the Commission cigarette testing program are of no health significance to the consumer." JD. PFF, ¶ 374. What Defendants fail to mention is that Witt's statement was not based on any claimed flaws in the FTC Method, but instead based on R.J. Reynolds's position that cigarettes are not harmful to health. 2025045756-5761 at 5760 ("RJRT's position, however, is that the numbers are irrelevant because no one has ever shown that any particular constituent of cigarette smoke is the cause of disease in a smoker.").

42. Moreover, while Defendants attempt to charge the United States with having had extensive knowledge of the fact that smoker compensation rendered the FTC tar and nicotine yields for low tar cigarettes inaccurate, R.J. Reynolds itself stated in its July 2, 1984 letter to the FTC that these claims were untrue:

> [T]he Commission has also asked for comment on broad questions concerning "smoker compensation." . . . In their submissions [in response,] health organizations take the position (which is not correct) that the average smoker will get the same amount of "tar" and nicotine from higher and lower "tar" cigarettes, therefore making the Commission's numbers irrelevant to the consumer. RJRT,

> on the other hand, maintains that the average smoker will get less "tar" from smoking a low "tar" cigarette than he or she will receive from smoking a higher "tar" product, and that the average smoker of low "tar" cigarettes does not smoke more cigarettes than the average smoker of higher "tar" cigarettes.

2025045756-5761 at 2025045760. R.J. Reynolds cautioned that any proposed changes to the FTC Method should be considered only following "further research" on the issue, and only if this further research indicated that changes would make the FTC yields "more meaningful" to consumers. 2025045756-5761 at 2025045760.

6. Defendants Made Public Statements Well Into The 1990s That The FTC Method Was Useful To Consumers

43. Defendants' preliminary proposed findings fault the FTC, the Department of Health and Human Services, and the United States for not changing the FTC Method. JD. PFF, ¶¶ 371-400. However, Defendants' allegation that they criticized the FTC Method from its inception (refuted above) and Defendants' claims as to what the FTC or the "public health authorities" believed with respect to the FTC Method are carefully worded to omit the fact that Defendants themselves staunchly defended the validity of the FTC Method as providing useful information to consumers and opposed changes to it well into the 1990s, nearly thirty years after it was established.

44. Defendants themselves have not supported changing the FTC Method and have argued that it provides meaningful information to consumers with regard to the actual amounts of tar and nicotine they receive from particular brands of cigarettes. U.S. PFF, ¶ 962; Expert Report of Jack Henningfield in United States v. Philip Morris. In particular, on April 14, 1994, Brown & Williamson Chief Executive Officer Thomas Sandefur, appearing on behalf of Brown & Williamson before a subcommittee of the United States House of

Representatives, defended the utility of the FTC Method, stating: "We also vigorously dispute the suggestion . . . that the 'tar' and nicotine ratings produced using the FTC test method are meaningless or misleading. . . . [W]e do believe that smokers can expect to receive lower amounts of those constituents from lower-rated brands than from higher-rated brands, and that the FTC test method therefore reliably ranks cigarettes in terms of 'tar' and nicotine deliveries." 682637627-7629 at 7629. As late as 1996, Defendants continued to maintain that there was a meaningful relationship between the FTC ratings and tar and nicotine exposure. U.S. PFF, ¶ 963; Expert Report of Jack Henningfield in United States v. Philip Morris.

C. Defendants' Misrepresentations Regarding The United States' Historical Understanding Of Smoker Compensation And The Public Health Service's Statements Relating To The Harmfulness of Low Tar Cigarettes

45. Defendants state in vague fashion that the United States was "well aware, early on" that smoker compensation could reduce or eliminate any possible health benefit of smoking low tar cigarettes. JD. PFF, ¶ 352. Indeed, the United States presented evidence that Defendants were aware that smokers compensate for lower nicotine, not lower tar. U.S. PPF, § IV.D.1.b.

1. Compensation And Nicotine Addiction

46. Because compensation is the act of "oversmoking" cigarettes to obtain enough nicotine to sustain nicotine addiction, compensation presupposes nicotine addiction. U.S. PFF, § IV.D.1.b.

47. While the Cigarette Manufacturer Defendants' internal documents demonstrate that they were aware as early as the late 1950s and early 1960s that nicotine in cigarettes is

addictive, U.S. PFF, § IV.B.3, all Defendants other than Philip Morris dispute to this day that nicotine as delivered by cigarettes is addictive. In early 2003, more than three years after this lawsuit was filed, Philip Morris again changed its position on nicotine addiction, acknowledging for the first time that "nicotine in cigarette smoke is addictive." Philip Morris Incorporated's First Supplemental Response to Plaintiff's First Request for Admission to All Defendants, United States v. Philip Morris, January 6, 2003; Philip Morris Incorporated's Second Supplemental Response to Plaintiff's Specific Interrogatories to Defendants Philip Morris, Inc. and Philip Morris Companies, Inc., United States v. Philip Morris, January 6, 2003, at 6.

48. Defendants point out that the historical statements of the United States Public Health Service (discussed in detail below) acknowledge that, if low tar cigarettes are smoked differently than full-flavor cigarettes, the result may be that the FTC tar and nicotine yields for low tar cigarettes are inaccurate. Defendants then argue that these statements somehow indicate that the United States was aware that, through the mechanism of smoker compensation, smokers who smoke low tar cigarettes, due to nicotine addiction, will modify their smoking habits to inhale enough nicotine to sustain their addiction, in the process ingesting amounts of tar and nicotine that far exceed those reported by the FTC Method. Defendants' claim is a most blatant form of equivocation.

49. For Defendants to charge the United States with having had knowledge of compensation (which assumes the addictiveness of nicotine) for dozens of years, and to simultaneously deny that nicotine is addictive to this day merely illustrates the lengths to which Defendants' argument depends upon the suspension of reason and logic, let alone

documentary evidence.

50. The statements of the United States that Defendants claim support their contention that the United States was aware of compensation do not actually indicate such awareness. These statements indicate only that the United States Public Health Service was aware of the possibility that people may be smoking low tar cigarettes differently than regular cigarettes, and that, if smokers inhale more deeply, take more puffs, take bigger puffs, smoke more cigarettes and/or cover up vent holes when smoking low tar cigarettes, these activities may negate any reduced deliveries of low tar cigarettes and thereby eliminate any potential reduction in harm. These statements do not indicate awareness of compensation, which presupposes nicotine addiction, but rather a cautious recognition that any possible reduced hazard of low tar cigarettes presupposes that these cigarettes are not smoked in ways that result in the delivery of more tar and nicotine to smokers.

2. The Progression Of The United States' Understanding Of The Comparative Harmfulness Of Low Tar Cigarettes

51. Defendants claim that the United States has for years informed the public that low tar cigarettes are less harmful than regular delivery cigarettes. This claim both exaggerates the dissemination and effect of the statements made by the United States on this topic and omits crucial cautionary information contained in the United States' statements relating to the health hazards of low tar cigarettes.

52. In 1966, the United States Public Health Service stated that "[t]he preponderance of scientific evidence strongly suggests that the lower the tar and nicotine content of cigarette smoke, the less harmful would be the effect." The Health Consequences of Smoking: The

Changing Cigarette, Surgeon General's Report, Preface at v (1981) (referring to 1966 USPHS statement). This was not a statement that low tar cigarettes are less harmful to those who smoke them, but merely an acknowledgment that, all other things being equal, cigarette smoke with less tar and nicotine is less harmful.

53. In the 1979 Surgeon General's Report, the Public Health Service confirmed its earlier statement, "but was more cautious." The Preface to the 1979 Report announced that "three caveats [were] in order" regarding the potential harmfulness of low tar cigarettes, which included the following two admonitions:

> [Consumers] should be warned that, in shifting to a less hazardous cigarette, they may in fact increase their hazard if they begin smoking more cigarettes or inhaling more deeply. And, most of all, they should be cautioned that even the lowest yield of cigarettes presents health hazards very much higher than would be encountered if they smoked no cigarettes at all, and that the single most effective way to reduce the hazards associated with smoking is to quit.

The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report, Preface at v (1981) (referring to 1979 Surgeon General's Report).

54. The 1981 Surgeon General's Report contained even more caveats regarding any claim that low tar cigarettes were less harmful, stating that "smokers who are unwilling or as yet unable to quit are well advised to switch to cigarettes yielding less 'tar' and nicotine, provided they do not increase their smoking or change their smoking in other ways. But our new review raises new questions and suggests an even more cautious approach to the issue." Among the basic findings of the Report were:

1. There is no safe cigarette and no safe level of consumption.
2. Smoking cigarettes with lower yields of "tar" and nicotine reduces the risk of lung cancer . . ., provided there is no compensatory increase in the amount smoked. However, the benefits are minimal in comparison with

giving up cigarettes entirely. The single most effective way to reduce hazards of smoking continues to be that of quitting entirely.

3. It is not clear what reductions in risk may occur in the case of diseases other than lung cancer. . . .

5. Smokers may increase the number of cigarettes they smoke and inhale more deeply when they switch to lower yield cigarettes. Compensatory behavior may negate any advantage of the lower yield product or even increase the health risk.

The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report, Preface at vi (1981).

55. In addition, the letter of Surgeon General Harris accompanying the release of the 1981 Surgeon General's Report stated that "[t]he person who changes to a cigarette with lower measured yields may reduce certain hazards of smoking, but the benefits will be small compared to the benefits of quitting entirely." The Health Consequences of Smoking: The Changing Cigarette, Surgeon General's Report (1981), Ltr. of Surgeon General Patricia Roberts Harris to Hon. Thomas P. O'Neill, Jr., Speaker, House of Representatives (emphasis added).

56. The Public Health Service repeated this admonition in the 1988 Surgeon General's Report: "The 1981 Surgeon General's Report cautioned that the health benefits of switching to low-yield brands are minimal compared with giving up cigarettes entirely." The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General 567 (1988).

57. The 1989 Surgeon General's Report expressed even more caution with respect to any claim that low tar cigarettes are less harmful, stating that "the net health impact" of low tar cigarettes relative to full-flavor and unfiltered cigarettes "is unknown." Reducing the Health Consequences of Smoking: 25 Years of Progress: A Report of the Surgeon General

28-29 (1989). The Report added that, "[t]o date, the net health effects of the introduction and consumer acceptance of filtered and low yield cigarettes have not been determined." Reducing the Health Consequences of Smoking: 25 Years of Progress: A Report of the Surgeon General 666 (1989).

58. In addition, while the 1989 Surgeon General's Report acknowledged that studies had indicated that smoking filtered low tar cigarettes presented less risk of lung cancer than smoking unfiltered high tar cigarettes, the Report again cautioned that whether low tar cigarettes were any less harmful overall was undetermined, stating that "there is no conclusive evidence that the lower yield cigarettes are associated with reduced risk of overall mortality," and added that "compensatory smoking behavior in response to lower nicotine intake might actually increase the intake of tobacco smoke toxins." Reducing the Health Consequences of Smoking: 25 Years of Progress: A Report of the Surgeon General 183 (1989).

59. In addition, National Cancer Institute Monograph 8 stated in 1997 that the shift to low tar cigarettes had provided no reduction in harm to smokers, but had instead corresponded with an increase in smoking related deaths:

> Among cigarette smokers, lung cancer death rates . . . nearly doubled in men and increased almost sixfold in women. Lung cancer rates remained essentially constant in lifelong never-smokers. . . . The evolution of cigarettes has not protected smokers from fatal lung cancer. Rather, the potential benefits of reduced tar, as measured by machine smoking, appear to be overwhelmed by adverse changes in smoking practices and perhaps by other unidentified factors.

Changes in Cigarette Related Disease Risks and Their Implication for Prevention and Control. Smoking and Tobacco Control Monograph No. 8. Bethesda, MD: U.S.

Department of Health and Human Services, Public Health Service, National Institutes of Health. NIH Publication No. 97-4213, February 1997, at 330 (emphasis added).

60. In the face of this myriad of caveats, admonitions, instructions to quit, statements that low tar cigarettes were of "minimal" or no health benefit relative to regular cigarettes, and other reservations expressed by the United States Department of Health and Human Services regarding the potential reduced harm of low tar cigarettes, Defendants' claim that "the Public Health service and Surgeon General unequivocally endorsed encouragement of switching to lower yield cigarettes" is simply erroneous. JD. PFF, ¶ 354.

61. Defendants also mischaracterize the public service announcements and other statements of the United States Public Health Service relating to low tar cigarettes. First, Defendants claim that government agencies, including the Public Health Service, actively and extensively promoted low tar cigarettes and encouraged their promotion. JD. PFF, ¶ 413. The United States did not promote, or encourage the promotion of, any cigarettes.

62. The United States Public Health Service did disseminate public service announcements and other statements for a brief period of one to two years in the late 1960s and early 1970s relating to low tar cigarettes. However, these statements did not promote low tar cigarettes. The statements conveyed the following messages: (1) all cigarette smoking is harmful and smokers should quit; (2) for smokers who cannot or do not quit, switching to lower tar cigarettes to reduce the harmfulness of smoking, <u>if</u> there is no change to the method of smoking; (3) any reduction in harm from switching to lower tar cigarettes may be negated by changing the method of smoking; and (4) smoking lower tar cigarettes is far more dangerous than quitting smoking. Given the limited budget for distributing these

statements, they were not subject to expansive dissemination to the public. These statements were disseminated for a time period of two years or less. Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 30:21-41:5.

63. In Price et al. v. Philip Morris, Inc., the court wholly rejected arguments by Philip Morris (that mirror the arguments made by Defendants in this case) that the limited statements of the United States or the public health community increased consumer demand for low tar cigarettes. The court stated:

> Philip Morris specifically argued that the public health community as a whole, and specific components of the public health community (including the authors of the Reports of the Surgeon General and statements issued by the American Cancer Society) were the reasons some consumers believed these products to be safer. The Court finds this testimony and evidence neither credible nor persuasive as a defense to liability in this Action. As a threshold matter, the fact that the public health community recommended to those smokers who could not quit that a lower delivery cigarette would reduce risk is not misleading. There is apparently no dispute that actual lower delivery of toxic substances may reduce harm. The fact that Marlboro Lights and Cambridge Lights did not reduce the actual delivery of harmful toxins does not convert the message from the public health community into a defense to Philip Morris' intentional fraudulent conduct. . . . Philip Morris had specific scientific and cigarette design knowledge that the public health community did not possess related to Lights cigarettes generally as well as Marlboro Lights and Cambridge Lights cigarettes specifically. This demonstrates that although Philip Morris knew their Lights cigarettes were not safer, the public health community did not know this fact. The Court finds that Philip Morris took advantage of the message of the public health community in selling their cigarettes which delivered neither lower tar and nicotine, nor less harm to the [plaintiffs] in this case. . . . Philip Morris' contention that the public health community should somehow be blamed for the fraud associated with Lights cigarettes is both morally and factually incorrect. At all times since the inception of their Lights products, Philip Morris was aware of their deception and was aware that the public health community was among those deceived by the fact that their products did not deliver the promised lower tar and nicotine and were not "light" as represented.

Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 16, 24,

¶¶ 54, 55, 81.

64. In stark contrast to the claims of the Public Health Service encouraging people to quit, stating that all cigarettes are harmful to health and identifying the potential health benefit of low tar cigarettes as "minimal" are Defendants' unequivocal and aggressive advertisements and other statements promoting low tar cigarettes during the same time period.

65. Defendants' advertisements, as opposed to those encouraging smokers to quit, actually encouraged smokers who were considering quitting to smoke low tar cigarettes instead of quitting. Defendants internal documents show that their advertising for low tar cigarettes was intended to intercept smokers who would otherwise quit and keep them smoking. U.S. PFF, § IV.D.3.b. In addition, while the Public Health Service message always clearly stated that all cigarettes are harmful and that not smoking is the only safe alternative, all Defendants continued to deny that any cigarettes were harmful to health through the date this case was filed. U.S. PFF, § IV.A. Certain Defendants continue to this day to deny that cigarettes are harmful to health. U.S. PFF, § IV.A.

66. Similarly, Defendants' identification of the FTC actions regarding Barclay cigarettes only serves to illustrate that Defendants withheld their extensive knowledge of compensation except when revealing it served their financial interests. Citing the Barclay investigation, Defendants claim the FTC was well aware of cigarette design issues that could affect compensation. The FTC only became aware that the FTC measurements for Barclay cigarettes were inaccurately low because several other manufacturers (Philip Morris and R.J. Reynolds) brought the clearly inaccurate nature of the Barclay FTC yields to the attention of

the FTC. This demonstrates that Defendants' understanding of the means through which cigarette design could be manipulated to render the FTC Method tar and nicotine yields relating to low tar cigarettes deceptively low when compared to human smoking far surpassed that of the FTC. In addition, the complaints of Philip Morris and R.J. Reynolds with Barclay did not include any reference to smoker compensation to sustain nicotine addiction, but only addressed the narrow claim that Barclay's filter rendered it demonstrably impossible for human smokers to receive tar and nicotine yields that approximated those produced by the FTC testing method. Apart from Barclay, a situation in which the low FTC tar and nicotine yields for this Brown & Williamson product threatened to lay bare the entire industry's understanding of compensation and their sophisticated design efforts to exploit it and the FTC Method for commercial advantage, U.S. PFF, ¶¶ 921-925, 918-920, Defendants concealed their extensive knowledge that smoker compensation, driven by nicotine addiction, rendered the FTC tar and nicotine yields for their low tar brands deceptively low.

67. Similarly, Defendants claim that the FTC was aware of the presence of vent holes in cigarette filters for more than twenty-five years. JD. PFF, ¶ 359. A notable omission from Defendants' statement is that, while the FTC may have been aware of vent holes at that time, it was not until much later that the FTC became aware that vent holes are routinely covered by smokers, increasing the cigarettes' tar and nicotine deliveries.

D. Tar, Not Taste

1. Defendants' Knowledge For Years That Smokers Switch Down To Low Tar Cigarettes To Reduce Their Tar Intake, Despite The Worse Taste

68. In their proposed findings of fact, Defendants suggest that consumers switch

down to lower yield products for an alleged taste benefit. Specifically, Defendants baldly assert that "most smokers still cite taste preference as a reason for their decision to smoke 'lights' cigarettes." JD. PFF, ¶ 473 (emphasis added). In addition, Defendants assert that smokers "overwhelmingly rely on descriptors to convey information to them about the taste characteristics of certain categories of cigarettes." JD. PFF, ¶ 476.

69. Defendants' assertions are directly contradicted by their own internal documents, marketing, and public statements. Defendants have long marketed their low tar products for their alleged comparative or absolute health benefits, not for their "lighter" taste. U.S. PFF, ¶¶ 1050-1068. Moreover, Defendants have known for years that smokers switch to low tar cigarettes despite, not because of, the lowered FTC tar and nicotine levels. To cite but two representative internal documents:

- A July 25, 1977 Brown & Williamson internal marketing study stated: "It must be assumed that Full Taste smokers come down to 'low tar' expecting less taste . . . [t]hey are willing to compromise taste expectations for health reassurance." U.S. PFF, ¶ 1061.

- A December 16, 1988 R.J. Reynolds marketing presentation, referring to low tar cigarettes, stated that: "For a successful product the perceived health benefit must balance any sacrifice that must be made in terms of taste, satisfaction and traditional smoking pleasures." U.S. PFF ¶ 1061.

70. Moreover, the Court in the Madison County, Illinois case of Price et al. v. Philip Morris, Inc., No. 00-L-112, which dealt with Philip Morris's deceptive marketing of low tar cigarettes, rejected Philip Morris's claims that it market its low tar cigarettes for taste. In its March 21, 2003 Judgment, the Court stated:

> The Court finds the testimony and argument presented by Philip Morris that these Lights cigarettes were at least in part marketed based upon taste characteristics as not credible and unconvincing. . . . Philip Morris . . . understood the taste . . . to be

> a negative produce attribute that needed to be overcome by the implicit health representation. . . . [W]hile acknowledging that all cigarettes are unsafe, [the plaintiffs] all believed that buying and smoking a Light cigarette would be a safer or healthier alternative to a regular cigarette.

Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 13, ¶¶ 45-46.

2. Smokers' Beliefs That Low Tar Cigarettes Are Healthier As A Result Of Defendants' Deceptive Marketing

71. In their proposed findings of fact, Defendants attempt to confuse the issue of the effects of their deceptive marketing of low tar cigarettes on the public by emphasizing the fact that "virtually all smokers understand that no amount of smoking is 'safe', regardless of the brand or type of cigarette." JD. PFF, ¶¶ 473-476. While on the one hand Defendants concede that "many consumers believe that lower tar cigarettes may reduce the health risks of smoking," JD. PFF, ¶ 474, Defendants on the other hand assert that "most consumers continue to believe that 'light' and 'ultralight' cigarettes cannot be deemed 'safe'." JD. PFF, ¶ 475.

72. Notwithstanding Defendants' allegation that most smokers are aware that all smoking is harmful, what is important and relevant to this case is that, due to Defendants' deceptive marketing of low tar cigarettes, a considerable percentage of smokers continue to believe that smoking them is less harmful. In their preliminary proposed findings, Defendants concede that at least 20% of smokers believe that light/ultralight cigarettes are healthier for them. JD. PFF, ¶ 475. If anything, these numbers largely understate the evidence. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S.

Department of Health and Human Services, Public Health Service, National Institutes of Health, at 193 (citing nationwide 1987 survey results showing that "45.7 percent of Ultra-Light smokers, 32.2 percent of Light smokers, and 29.4 percent of Regular smokers said that low-tar cigarettes reduce the risk of cancer.").

E. Defendants' Claims Of "Voluntary" Provision Of Information To Consumers

73. In its October 15, 2002 Order in In Re Simon II Litigation, the United States District Court for the Eastern District of New York found: "It was not seriously disputed at a prior trial that defendants [referring to PMUSA, RJR, B&W, BAT Industries, p.l.c. (parent company of both Brown & Williamson and BATCo when named as a defendant in Simon II), Lorillard and Liggett] failed to inform the public about their knowledge of the limited health benefits of low tar cigarettes and their knowledge of smoker compensation by a change in the smokers' habits." Memorandum and Order, In re Simon II Litigation, No. 00-CV-5332 (E.D.N.Y. Oct. 15, 2002), at 49; U.S. PFF, ¶ 1182.

74. Defendants also claim that they have informed the public regarding low tar cigarettes and smoker compensation through the provision of "voluntary" information to consumers. JD. PFF, ¶¶ 466-472. The only basis for these claims is that a few Cigarette Company Defendants have, in the last few years since the initiation of this lawsuit, begun very limited dissemination of some information relating to low tar cigarettes and smoker compensation. Indeed, Defendants identify comprise, in toto, (1) one statement Brown & Williamson includes in its cigarette advertising; and (2) limited internet statements posted on the corporate web sites of Philip Morris, R.J. Reynolds and Brown & Williamson. JD. PFF,

¶¶ 466-472. Thus, Defendants' very recent "voluntary" provision of information occurs primarily through their corporate web sites, which receive roughly 300 hits per day. Deposition of Ellen Merlo, United States v. Philip Morris, June 11, 2002, 163:19-164:2; Deposition of Denise Keane, United States v. Philip Morris, October 2, 2002, 300:14-301:18. Defendants never identify the dates when they claim these three Cigarette Company Defendants began posting or disseminating these statements. More importantly, Defendants provide no explanation as to why they never previously sought to convey this information, which Defendants themselves have known for several decades, to consumers. U.S. PFF, § IV.D.1-2.

75. Moreover, given that the Cigarette Company Defendants collectively spend millions of dollars each day on extensive and far-reaching marketing and promotional activities for their cigarettes, the extremely limited nature of Defendants' dissemination of this information on low tar cigarettes calls into serious question Defendants' self-proclaimed commitment to providing its consumers full and accurate information about their products.

76. Defendants also identified statements that Brown & Williamson is purportedly considering for potential introduction in future advertisements and cigarette packages. JD. PFF, ¶ 467. Because none of these had taken place as of the filing of Defendants' Proposed Findings, they are irrelevant.

F. Low Tar Cigarettes Are Not Safer

1. Generally

77. National Cancer Institute ("NCI") Monograph 13, based on one of the most extensive reviews of the scientific literature on low tar cigarettes and their health effects,

concluded that low tar cigarettes do not provide any significant reduction in harmfulness compared to full-flavor cigarettes. Defendants nevertheless claim that low tar cigarettes deliver less tar and nicotine to smokers and are, therefore, less harmful than full-flavor cigarettes. While Defendants acknowledge that smoker compensation results in increased tar and nicotine deliveries to smokers, they claim that compensation is "incomplete." By this, Defendants mean that, notwithstanding smoker compensation, smokers of low tar cigarettes inhale less tar and nicotine than full-flavor cigarettes. For several reasons, this contention by Defendants is a red herring.

2. NCI Monograph 13

78. First, Monograph 13, following extensive and rigorous internal and external review, concluded that, "[f]or spontaneous brand switchers, there appears to be complete compensation for nicotine delivery, reflecting more intensive smoking of lower yield cigarettes." Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, at 10. Defendants claim that compensation is incomplete (less than 100%), but Defendants provide no information as to the extent to which smokers compensate. Thus, even aside from the questionable basis for Defendants' claim, their claim that smoker compensation is "incomplete" could be based on a finding that smoker compensation is essentially complete, i.e., as much as 99.999% complete. This is mere semantic obfuscation on the part of Defendants that ignores Defendants' awareness of compensation and their

exploitation of it to design and market cigarettes whose yield bears little or no relation to machine-derived and publicly reported yield.

79. Moreover, Monograph 13 concluded that low tar and filtered cigarettes are no less harmful than regular delivery and unfiltered cigarettes based on the totality of the scientific evidence, not just on the epidemiological analysis with which Defendants' paid expert, William Wecker, a non-epidemiologist, takes issue. The first conclusion in Monograph 13 states that "[e]pidemiological and other scientific evidence, including patterns of mortality from smoking-caused diseases, does not indicate a benefit to public health from changes in cigarette design and manufacturing over the last fifty years." Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, at 10 (emphasis added).

80. In addition, Defendants' other claims relating to the harmful effects of low tar cigarettes reveal a deceptive game of wordplay. For example, Defendants claim that the United States' statement that "as actually smoked by most cigarette smokers," low tar cigarettes do not deliver less tar and nicotine (a statement that considers the effect of smoker compensation) is inconsistent with the statement that low tar cigarettes smoked in the same number and manner as high tar cigarettes deliver less tar and nicotine than full-flavor cigarettes (a statement that ignores the effects of smoker compensation). JD. PFF, ¶ 481.

81. Defendants also allege that low tar cigarettes provide a significant reduction in harmfulness relative to full-flavor cigarettes, and that the conclusions in NCI Monograph 13 to the contrary are wrong. In addition, Defendants claim that the conclusions of Monograph

13 were subject to "heavy criticism," an implication that the conclusions therein are scientifically invalid. These claims by Defendants are ridiculous, and are flatly contradicted by the extensive discovery that Defendants themselves conducted relating to Monograph 13. As Defendants' depositions of the participants of Monograph 13 have repeatedly indicated, the extensive review process for Monograph 13 resulted in a document that was completely valid scientifically.

82. Defendants have merely lifted comments relating to draft versions of Monograph 13 from the extensive review process, taken them out of context and held them up as indicative of a problem with the final Monograph. In so doing, Defendants ignore the fact that the very comments they identify were taken into account in developing the final Monograph, and helped to ensure the validity of the scientific findings therein. While the United States will not burden the Court with a recitation of each instance in which Defendants mischaracterize the review process, correction of some of the most significant misstatements by Defendants is in order.

83. First, Defendants go to lengths to play up a purported "disagreement" that two of the reviewers of the monograph (Sir Richard Doll and Sir Richard Peto) expressed with portions of the Monograph, which Defendants claim somehow negate the Monograph's results. The testimony in this case shows the opposite to be true – in fact, at a meeting in Toronto to discuss areas of agreement among the authors "to make the monograph the best and strongest it could possibly be," Dr. Jonathan Samet facilitated a discussion to address any concerns the authors might have concerning the Monograph.

84. At the Toronto meeting, Peto himself stated that all parties were in 97%-98%

agreement over the content of the Monograph. By the end of the Toronto meeting, Peto was the sole individual to express any disagreement with any aspect of the scientific conclusions in Monograph 13, and his disagreement was "very, very minor." Deposition of Scott Leischow, United States v. Philip Morris, March 26, 2003, 35:5-38:18, 74:25-76:5 ("Peto's comment . . . at a Toronto meeting where I was there, was that he was in agreement like 97%, you know, with the conclusion and there was just a very small difference, very slight difference of opinion and interpretation related to Chapter 4. So, I don't want to characterize it as a major difference of opinion. It was very, very minor."); Deposition of Stephen Marcus, United States v. Philip Morris, June 24, 2002, 55:24-56:8 (testifying as to Peto's statements that all parties were in 98% agreement).

85. In addition, Doll later testified under oath that he agreed with the conclusions of Monograph 13 with which he had previously disagreed, namely, cigarettes that provide low machine-measured tar and nicotine yields provide no reduction in harm relative to full-flavor cigarettes. Deposition of Sir Richard Doll, Boeken v. Philip Morris, Inc. et al., March 31, 2001, 28:15-30:1; Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 186:12-187:16. Moreover, while Peto indicated that his views "did not prevail" in the Monograph, he did not read the entire Monograph after it was completed and, as a consequence, expressed no opinion of the entire completed work. Deposition of Stephen Marcus, United States v. Philip Morris, June 24, 2002, 145:23-146:7; Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 188:6-189:11, 191:9-192:1. These facts flatly contradict Defendants' claim that Monograph 13 represents "the flawed view of one scientist." JD. PFF, ¶ 483.

86. Defendants also make various contradictory claims regarding the production of Monograph 13. For example, on the one hand, Defendants claim that Dr. David Burns, the Senior Scientific Editor of most of the NCI tobacco monographs, including Monograph 13, "ran roughshod over the entire development of the Monograph." JD. PFF, ¶ 494. At the same time, Defendants claim that "NCI selected David Burns and Neil Benowitz as the editors of Monograph 13, in part because NCI could control Burns and Benowitz, and through them the whole process" and that NCI "exercised 'complete oversight' over the entire process" of producing Monograph 13. JD. PFF, ¶¶ 497-498. In fact, Burns had been selected numerous years before to be the Senior Scientific Editor for almost all of the NCI smoking and health monographs due to his scientific expertise. Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 89:6-90:3. He was not, as Defendants imply, selected specifically and only for Monograph 13 "because NCI could control" him. Defendants' attempt to discredit Monograph 13, its contributor and the NCI's role in its development are baseless.

87. Defendants also claim that Monograph 13 represented a "complete reversal of the government's position" regarding whether low tar cigarettes are less harmful. JD. PFF, ¶ 493. This is simply not true.

88. As noted above in Section II.B., for decades preceding the release of Monograph 13, both Surgeon General's Reports and NCI Monographs stated that any reduced harmfulness of low tar and filtered cigarettes was questionable, at best, and could be negated by smoker compensation; these statements also included indications that, due to compensation, low tar cigarettes may be more harmful than regular-delivery cigarettes.

89. The evolution of the statements of United States' health authorities discussed above illustrates that, for decades before the publication of Monograph 13, the scientific opinion that low tar and filtered cigarettes may be every bit as bad for smokers as full-flavored cigarettes, if not worse, had appeared in several Surgeon General's Reports and NCI Monographs. These statements foreshadowed the conclusion in Monograph 13 that low tar cigarettes are not less harmful, and show that this conclusion was not, as Defendants allege, a "complete reversal of the government's position" as to the harmfulness of low tar and filtered cigarettes. JD. PFF, ¶ 493.

90. Defendants take issue with Monograph 13 despite the rigorous internal and external peer review process undertaken to ensure the complete validity of the scientific conclusions reflected therein. Deposition of Stephen Marcus, United States v. Philip Morris, June 24, 2002, 39:1-39:15, 159:18-160:2 ("I know NCI stands behind [Monograph 13]. I also know that they treat the [external] review process as sacrosanct. . . . It's an external review process by the best peers, and it is a separate process . . . . I think by making the internal clearance process as rigorous as possible and having the Toronto meeting and having Dr. Samet involved, I think all of those efforts were to ensure the highest quality document that we could stand behind.").

91. It is particularly telling that, not only has the scientific community not disputed the findings in Monograph 13, but three other publications in 2001 and 2002 (by the World Health Organization, a Canadian Expert Panel and the Institute of Medicine) echoed the same conclusions as Monograph 13: that low tar cigarettes are not any less harmful. Scientific Advisory Committee on Tobacco Product Regulation (SACTob), Recommendation on Heath

Claims Derived from ISO/FTC Method to Measure Cigarette Smoke. World Health Organization. Geneva, Switzerland (2002); Canadian Expert Panel, Putting an End to Deception: Proceedings of the International Expert Panel on Cigarette Descriptors. A report to the Canadian Minister of Health form the Ministerial Advisory Council on Tobacco Control 9 (2001) ("There is no convincing evidence of a meaningful health benefit to either individuals nor to the whole population resulting from cigarettes marketed as 'light' or mild'."); Stratton K, Shetty P, Wallace R, Bondurant S., Clearing the Smoke: Assessing the Science Base for Tobacco Harm Reduction. National Academy Press. Washington D.C. 67 (2001).

92. Over a year after Monograph 13 was released by NCI following the rigorous internal and external reviews and made available for public scrutiny by the scientific community, the only statements that Defendants promulgate to dispute the scientific validity of the Monograph are those of one of its experts in this case – William Wecker, a non-epidemiologist – which were prepared specifically for litigation and have never been subjected to any peer review or public scrutiny whatsoever.

93. Moreover, Wecker's claims take issue only with some of the epidemiological analysis in Monograph 13. As noted above, Monograph 13 clearly spells out that its conclusion that low tar cigarettes are not less harmful is based not only on a single analysis of epidemiological data by Dr. Burns or anyone else, but is based instead on the totality of the scientific evidence on this issue. Risks Associated with Smoking Cigarettes with Low Machine-Measured Yields of Tar and Nicotine. Smoking and Tobacco Control Monograph No. 13. Bethesda, MD: U.S. Department of Health and Human Services, Public Health

Service, National Institutes of Health, at 9-10 (noting that the considered "evidence is derived from research on human behavior and exposures, cigarette design and yields, smoke chemistry, epidemiological [and other] population-based data on human disease risk" and that "the objective was to determine whether the evidence taken as a whole shows that the cumulative effect of engineering changes in cigarette design over the last 50 years has reduced disease risks in smokers" and concluding that "[e]pidemiological and other scientific evidence" does not indicate a health benefit to low tar cigarettes). Thus, not only are the opinions of Defendants' non-epidemiologist expert witness on epidemiological data incorrect and inappropriate, they are largely irrelevant as well.

94. Defendants also repeatedly cite a one-page editorial by a non-scientist and former employee of the FTC, Jeremy Bulow, in sole support of their claims that the purpose of Monograph 13 was to promote a political agenda, that it is "false and misleading" and that it "lays the groundwork for more lawsuits against" the cigarette companies. JD. PFF, ¶¶ 353, 396, 494. The sworn testimony of the individuals who have both personal knowledge of the purpose of the Monograph and the scientific expertise to comment on its conclusions demonstrate that these scurrilous allegations are based only on rampant speculation and are devoid of any factual basis. Deposition of Stephen Marcus, United States v. Philip Morris, June 24, 2002, 39:1-39:15, 159:18-160:2; Deposition of Scott Leischow, United States v. Philip Morris, March 26, 2003, 40:5-40:8 ("I would say I didn't consider it controversial. It was a review. It was a process of understanding truth.") (referring to the internal clearance process for Monograph 13); Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 74:14-74:17 (describing the purpose of Monograph 13 as "to determine if there

was in fact a benefit to smokers on a population level for smoking reduced tar and nicotine cigarettes.").

G. Defendants' Unsupported Spoliation, Suppression, Document Destruction And Concealment Allegations

1. The United States Has Not Improperly Destroyed Evidence And Has Not Obstructed The Discovery Process

95. As is the case with much of Defendants' proposed "factual" findings, Defendants' accusations of evidence spoliation, failure to preserve evidence, and withholding of evidence are improper legal arguments that should be disregarded by the Court. Furthermore, Defendants' accusations should be rejected as both legally and factually inaccurate.

a. The United States Has Not Committed Evidence Spoliation

96. In their preliminary proposed findings of fact, Defendants accuse the United States of spoliation with regard to a Public Health Service Campaign initiated in December 1969 to encourage the use of what the United States then believed could potentially be less hazardous cigarettes. JD. PFF, ¶¶ 420-422. Defendants argue that because "Plaintiff was unable to provide Defendants with any information on where these Public Health Service low yield cigarette advertisements were broadcast, over what period of time, or how many smokers they were projected to reach," the United States should be estopped from pursuing this aspect of its RICO claims. JD. PFF, ¶ 422.

97. First, Defendants' claim that the United States "was unable to provide Defendants with any information" on this issue is factually incorrect, because present and former government employees, including former NCI employee Donald Shopland, did provide testimony on this topic. Deposition of Donald Shopland, United States v. Philip Morris, May

9, 2002, 30:21-41:5.

98. Second, Defendants' spoliation claim is legally baseless. Spoliation is a legal doctrine that can only exist where there exists a duty to preserve evidence. Although application of the spoliation doctrine is a highly fact-specific endeavor that involves analysis of multiple factors, courts generally agree that there is no duty to preserve evidence – and thus can be no spoliation – unless litigation either has been filed or was reasonably foreseeable at the time of the destruction. "Absent notice of litigation, or another source of a duty to preserve evidence, a company or individual generally has a right to dispose of his or her own property, including documents and tangible objects, without liability." Margaret M. Koesel, et al., "Spoliation of Evidence," 4 Tort & Ins. Pract. Sect. (2000); Vick v. Tex. Employment Comm'n, 514 F.2d 734, 737 (5th Cir. 1975) (affirming district court's refusal to give adverse inference instruction because "[t]here was indication here that the [plaintiff's employment] records were destroyed under routine procedures without bad faith and well in advance of [plaintiff's] service of interrogatories").

99. Defendants offer absolutely no factual basis or support for their conclusory allegation that the United States is guilty of spoliation for allegedly "lost or destroyed" evidence with regard to this public service campaign. Defendants fail to identify what evidence was allegedly destroyed, by whom, when, under what circumstances, or for what purpose. The Public Health Service campaign about which Defendants complain was initiated over thirty years ago, when this litigation obviously was not foreseeable. Defendants clearly have failed to prove evidence spoliation by the United States.

100. In addition, Defendants accuse the United States and Dr. Burns, co-editor and

contributing author of Monograph 13, of improperly withholding and destroying evidence regarding Monograph 13. Defendants have already brought these allegations before the Special Master, who has not found any spoliation by the United States. The Special Master concluded that with respect to documents in the possession of subcontractors like Dr. Burns, the United States did not have "control" as defined in Fed. R. Civ. P. 34 over those subcontractors and thus is not responsible for documents in their possession prior to the entry of Order #1. Report and Recommendation #49, United States v. Philip Morris, May 14, 2002, at 10 (adopted by the Court in Order #201); Report and Recommendation #107, United States v. Philip Morris, March 12, 2003, at 43. The Special Master further concluded that:

> Defendants have failed to establish that Plaintiff's use of contractors and subcontractors was part of some nefarious plan to avoid producing documents to the tobacco industry. The information here suggests that the NCI Monographs were produced in a fashion consistent with the then-usual NCI operating procedures.

Report and Recommendation #107, United States v. Philip Morris, March 12, 2003, at 43.

101. With respect to documents that were in the possession of NCI employees, and those in the possession of contractors and subcontractors after entry of Order #1, the Special Master again made no findings of spoliation. Report and Recommendation #107, United States v. Philip Morris, March 12, 2003, at 46, 50.

b. The United States Has Not Improperly Withheld Documents From Defendants

102. Defendants also accuse the United States of improperly withholding documents by asserting the "deliberative process" privilege. First, this is improper legal argument that the

Court should disregard. Second, the deliberative process privilege is a well-recognized and established privilege which the United States has legitimately asserted to protect privileged documents from disclosure. The Special Master has already examined many of the United States' deliberative process assertions and found them to have been properly asserted. Report and Recommendation #108, United States v. Philip Morris, March 18, 2003.

103. Furthermore, as explained above, the Special Master has concluded that the United States is not responsible for documents in the possession of subcontractors such as Dr. Burns prior to the entry of Order #1.

c. The United States Has Not Engaged In Suppression Of Scientific Research

104. Defendants also make several allegations relating to a study performed by the Robert Wood Johnson Foundation relating to consumer perception of low tar cigarettes with which a few employees of the Centers for Disease Control ("CDC") and other HHS sub-components had minimal involvement. JD. PFF, ¶¶ 477-480. The only role exercised by United States employees with regard to the study was "writing the questionnaire to be used" in the study. Deposition of Ralph Caraballo, United States v. Philip Morris, May 24, 2002, 28:1-11; Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 227:23-228:9.

105. After that point, the study, from administering the questionnaires to collection of the data, was controlled solely by the Robert Wood Johnson Foundation and employees of the Research Triangle Institute, and the CDC did not exercise any further input or control over it. Deposition of Ralph Caraballo, United States v. Philip Morris, May 24, 2002, 32:6-

38:9.

106. The raw data from the study is in the possession of the Robert Wood Johnson foundation, and no employees of the United States were ever granted access to it. Deposition of Ralph Caraballo, United States v. Philip Morris, May 24, 2002, 34:25-35:7; Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 230:5-21. Even postulating that any employees of the United States were to have any future involvement relating in any way to the Robert Wood Johnson Foundation survey, it would be only such involvement that the Robert Wood Johnson Foundation allowed. Deposition of Ralph Caraballo, United States v. Philip Morris, May 24, 2002, 35:3-38:9.

107. While it was originally contemplated that data from the survey may have been included in NCI Monograph 13, the study was not completed in time to be included. Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, at 221:3-229:18; 233:8-19. That the survey results were not included in Monograph 13 was "just a time factor." Deposition of Donald Shopland, United States v. Philip Morris, May 9, 2002, 229:14.

108. Defendants claim that "the facts concerning this low tar survey have the strong appearance of 'suppression' of scientific evidence." JD. PFF, ¶ 479. Defendants do not indicate whether they claim that it is the Robert Wood Johnson Foundation or the United States that engaged in this "suppression." Setting aside that there is no evidence whatsoever of suppression, if Defendants claim that the Robert Wood Johnson, a non-party in this case, engaged in suppression, that claim is irrelevant to this case. If Defendants' claim is that the United States somehow suppressed research relating to this study, given that the contribution

of United States employees to the survey had ended and the United States had absolutely no authority or control over the survey, then Defendants' claim is untrue on its face.

109. When Defendants' own standard for their claim that the Robert Wood Johnson Foundation survey gives the "strong appearance of 'suppression'" is applied to their own conduct, it is clear that Defendants' rigid control of the research they conducted, including discontinuation of research due to the fact that it would likely not support their litigation position, surely qualifies as "'suppression' of scientific evidence." JD. PFF, ¶ 479. For example, as stated in Section IV.A. of the United States' Preliminary Proposed Findings of Fact:

> With the heavy involvement of lawyers in the scientific research on [environmental tobacco smoke] exposure and health, scientists were often asked to provide the results of a proposed study first, and thus they employed "pilot" studies to give the lawyers advanced information. If the preliminary study produced results unfavorable to the litigation positions of Defendants, the lawyers would not continue to fund them. For example, R.J. Reynolds scientist Charles Green admitted in a presentation to an INFOTAB meeting on October 15, 1986, that while he was a part of the Hoel Committee, lawyers used the practice of pilot projects so that they could anticipate what the results of a study would be before it was completed. In this way, they would be able to discontinue projects if it looked as if the results obtained would be unfavorable.

U.S. PFF, ¶ 388 (citing Deposition of Donald K. Hoel, United States v. Philip Morris, June 27, 2002, 178:19-179:22).

H. Defendants' Irrelevant References In Chapter One Of Their Proposed Findings Relating To The Federal Trade Commission And The Federal Cigarette Labeling And Advertising Act

110. Chapter One of Defendants' preliminary proposed findings contains Defendants' extensive recitation of what they maintain are historical facts relating to the Federal Trade Commission and the Federal Cigarette Labeling and Advertising Act. The United States does

not agree with Defendants' characterizations and representations of this history. In addition, as discussed earlier in this Section and elsewhere in the instant Response, the legal arguments Defendants claim are supported by these factual recitations (including, but not limited to, preemption and estoppel) are clearly invalid.

111. The invalidity of Defendants' claims on this topic is evidenced by the fact that they were squarely rejected by the court in Price et al. v. Philip Morris, Inc., a case brought against Philip Morris for deceptive marketing of low tar cigarettes. In its March 21, 2003 Judgment following the bench trial of that case, the Court held that "none of Plaintiffs' claims are expressly preempted by the FCLAA." Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 32-33, ¶ 111. Following the United States Supreme Court decision in Cippollone v. Liggett Group, Inc., 505 U.S. 504 (1992), the Price court concluded that – as is true in this case – because Plaintiffs' claims were based on upon the independent duty not to deceive under Illinois state law and were unrelated to a failure to warn claim, they were not preempted. Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 33, ¶¶ 112-119. The Price court also rejected Philip Morris's contention that the action was preempted because it conflicted with the regulation and policies of the FTC, concluding that "[n]either the FCLAA nor any regulation of the FTC governs the conduct at issue in this case – Philip Morris' voluntary use of 'Lights' and 'Lowered Tar and Nicotine' descriptors on its cigarette packages." Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 35, ¶ 119. Furthermore, the Price court rejected Philip Morris's argument that the action was precluded by the primary jurisdiction of the FTC. The Court concluded that "Philip Morris has failed to demonstrate through evidence

offered at trial that the FTC has some specialized or technical expertise such that this Court should defer to the FTC rather than adjudicating this matter." Judgment, Price, et al. v. Philip Morris, Inc., Case No. 00-L-112 (March 21, 2003), at 36, ¶ 121.

112. Therefore, in order to focus on placing before the Court only issues of significant relevance to the trial of this case, the United States will not respond to Defendants' expansive and irrelevant statements in this area.

III. UNITED STATES' RESPONSE TO CHAPTER THREE

113. In Chapter Three, JD. PFF, pp. 279-381, Defendants would have this Court believe that they participated fully in a joint industry-government effort to develop a less hazardous cigarette. The failure to do so, they allege, was the fault of the United States, because: (a) the United States prematurely disbanded this joint effort – the Tobacco Working Group ("TWG"); (b) thereafter, when the companies struck out on their own to do so, the United States "disparaged and impeded" Defendants from marketing products as "safer" without their providing proof of the same, while simultaneously refusing to develop standards of proof for them to follow (JD. PFF, ¶ 559); and (c) the United States failed to assist these companies by testing and promoting their purportedly less hazardous cigarette products for them. Further, Defendants allege that the TWG's failure proves that it was virtually impossible to develop actually safe cigarettes, and therefore their failure to market "safer" products cannot give rise to liability. Accordingly, Defendants conclude that the United States' decision to bring suit on these grounds is "a bit much" and therefore its claims are waived. JD. PFF, ¶ 692.

A. Defendants' "Participation" In The TWG Was, Like Much Of Their Other Fraudulent Activity, Controlled By Industry Lawyers For The Purpose Of Creating And Fostering A Distorted Picture Of The Scientific Landscape Surrounding Smoking And Health

114. Defendants' interpretation of the facts are as creative as their legal theories, but no less specious. The United States already has responded to many of the above allegations in its Preliminary Proposed Findings of Fact, U.S. PFF, § IV.G, and concentrates here on correcting Defendants' skewed picture of their role in the TWG and the implications of that

body's work for the argument that Defendants are essentially immune from suit for their fraudulent "safer cigarette" activities and statements.

115. The National Cancer Institute ("NCI") Lung Cancer Task Force was appointed in July 1967, and the TWG, which initially was the Less Hazardous Cigarette Subcommittee of the Lung Cancer Task Force, was appointed in March 1968. Defendants appear to be confused about the structure and source of the TWG. Twice they have cited for the purpose of describing the TWG what instead are descriptions of the Department of Health Education and Welfare's Joint Committee on Tobacco and Health. See JD. PFF, ¶ 572 (misusing 680231439-1448 at 1439 and AGE 014 2480-2488 at 2481). The Joint Committee was a completely separate entity, unrelated to TWG. See 680231419-1423 at 1419. The name changed from the Less Hazardous Cigarette Working Group to the TWG in order to facilitate industry participation. 11300905-0905.

116. The TWG in its various forms existed from 1968 through 1977, when it was dissolved – along with three other NCI advisory groups – in a cost cutting measure. 680142974-2974; 680142966-2966; 680142967-2967; see also "Diet & Nutrition, Carcinogenesis, Virus, Tobacco Committees Proposed for Elimination," The Cancer Letter, Vol. 3, No. 18, May 6, 1977, pp. 1-2. Funding for TWG projects, however, continued until 1980. E.g., "Smoking Program May Have Succeeded, Rauscher Says, Looking At Its Budget," The Cancer Letter, Vol. 2, No. 30, July 23, 1976, pp. 4-5.

117. Contrary to the impression presented by Defendants, the TWG and its industry participants were not actually conducting the work of researching and testing potentially less hazardous cigarette products. Rather, the TWG functioned solely as an advisory group to the

NCI's Smoking and Health Program staff and its director who, for most of the duration of the TWG, was Dr. Gio B. Gori. 87754028-4069 at 4033-4044. The purpose of the TWG was to meet quarterly and serve on subcommittees, advising Gori and his staff as to "overall program approaches and priorities; interpretation and publication of . . . data . . .; experimental methods and design; and design of less hazardous cigarette models and definition of other experimental approaches, devices or processes." Id. at 4040.

118. Defendants characterize their involvement in the TWG as "active and productive participants . . . whose efforts were lauded." JD. PFF, ¶ 576. In reality, however, the cigarette company representatives were "active" only in their efforts to monitor, co-opt, and derail the work and thesis of the TWG. Although representatives from Defendants Philip Morris, R. J. Reynolds, Lorillard, and later Brown & Williamson and Liggett were members of the TWG, their participation was far from altruistic. Rather, it allowed Defendants to keep abreast of what the United States was doing with respect to smoking and health issues and it provided a mechanism by which Defendants could try to influence what the United States' activities were in the smoking and health arena. Thus, far from a "partnership," as alleged by Defendants, Defendants realized that participation was a vital vehicle for furthering their conspiracy to defraud.

1. Defendants Never Embraced The Goals Or Mission Of The TWG – Keeping The Group At Arms' Length

119. Defendants' characterization of their role in the TWG as "full" and "cooperative" is contrary to the facts. From the beginning, as instructed by Defendants' management and counsel, the companies' begrudging involvement was hedged with stipulation, conditions,

and disclaimer-laden restraint. Indeed, they remained throughout unwilling even to accept the basic proposition that smoking threatened human health and geared their involvement accordingly.

120. Murray Senkus, R.J. Reynolds's original representative on TWG, admitted that Defendants' attorneys encouraged participation of Defendant Cigarette Companies in the TWG because it would enhance their public image and might be useful in anticipated litigation. 515872416-2417. As early as 1968, he premised his participation in TWG with a written disclaimer that it did not mean that he in any way accepted the proposition that smoking was harmful. 515872429-2429; see also 501555656-5661 at 5661. Senkus maintained that his role was limited to providing technical advice on the means of implementing the experimental programs and that he was to refrain from expressing opinions on test results. 515872428-2428.

121. Similarly, on March 28, 1968, Lorillard's Director of Research and Development, A.W. Spears, wrote in his acceptance letter to TWG director Gori that he "agreed to serve as a scientific advisor to the group 'in my individual capacity, and not as a representative either of my company or of the tobacco industry and, accordingly, it should not be stated or implied that the tobacco industry or my company is represented.'" 03645686-5686.

122. At the March 14, 1972 meeting of counsel at the Tobacco Institute, participants discussed the nature of the relationship between Defendants' scientific directors and TWG, as well as the need to "correct the impression[, . . .] for the purpose of . . . litigation" that the scientific directors

concurred in the type of animal tests which [were] being sponsored by the

> Working Group. . . . After discussion it was agreed that the three original members of the Working Group (Wakeham [of Philip Morris], Senkus [of Reynolds], Spears [of Lorillard]) would write separate letters to Gori correcting his statement. [Outside industry counsel David] Hardy was requested by [B&W general counsel and later CTR president Addison] Yeaman to draft the substance of such a letter.

10050 5229-5230.

123. That very day, attorney David Hardy of Shook, Hardy & Bacon wrote to Tobacco Institute Executive Committee member Thomas Ahrensfeld and lawyers for Defendant Cigarette Companies enclosing "a draft of the type of letter that should go to Dr. Gori from Doctors Wakeham, Senkus and Spears, the three initial members of the Tobacco Working Group. . . . The enclosed draft is not being sent directly to the research directors because I thought that in each instance counsel would want to take it up with their own director." 03645691-5692.

124. The scientific directors turned around and sent out such letters. On March 29, 1972, Senkus reiterated his 1968 position upon accepting the invitation to participate on the TWG: "I am in no manner accepting the view (1) that present cigarettes are hazardous or (2) that the smoke of such cigarettes causes or contributes to the development of human lung cancer." 501990268-0269. Likewise, on May 26, 1972, Spears repeated the position he first took in 1968: "I am sure it has been understood and should be understood in the future that I am not serving on the Tobacco Working Group as an official representative or spokesman for my company or the tobacco industry. I do not agree with the premise that cigarettes as presently manufactured are hazardous, or that a causal relationship between smoking and human disease has been established." 03645684-5685. Philip Morris's Hugh Wakeham

wrote, reiterating his 1968 position, "Nothing in my activities on the Tobacco Working Group . . . should be construed as an endorsement of the NCI program or the results obtained therefrom, either by me or by my Company." 1005055199-5199. And in a letter dated March 28, 1972, B&W's I.W. Hughes wrote to Gori:

> Although I am Research and Development Director for Brown & Williamson Tobacco Corporation, I am not purporting to serve on the Tobacco Working Group as an official representative of my company or of the tobacco industry. Further, my participation is not to be construed as concurring with the premise that cigarettes presently manufactured are hazardous or that there is any scientifically demonstrated causal relationship between cigarette smoking and human disease.

680231759-1760 at 1759.

125. Again at the Committee of Counsel meeting held at the Tobacco Institute on March 14, 1973, Defendants' lawyers discussed Defendants' participation in the TWG. The minutes reflect that during the afternoon session of the meeting between the company research directors and counsel, they:

> consider[ed] an appropriate response to the letter dated March 9, 1973, from Dr. Gori to the Research Directors in their capacity as members of the Tobacco Working Group. ... After careful consideration of the views of the members of the Tobacco Institute staff with regard to the public relations and political effects of the public withdrawal form the TWG, it was concluded that the research directors cannot withdraw. We should take steps to give the industry as much protection as is possible and at the same time remain in the Tobacco Working Group.

680143026-2027. The Committee adopted a three-point proposal whereby the scientific directors would decline to concur with or comment on Gori's recommendations. Id.

126. And again the research directors sent out new reservations and disclaimer letters prepared or outlined by counsel. On May 14, 1973, Liggett's counsel Joseph Greer wrote to his colleague Frederick Haas advising that Jack Roemer, Chairman of the Committee of

Counsel, scheduled a CTR meeting for May 15, 1973, to discuss whether the scientific directors should send a disclaimer letter to Gori concerning their participation on the TWG and whether CTR should participate in the TWG. LG2000466-0467. Philip Morris's scientific representative Hugh Wakeham wrote to Associate General Counsel Alex Holtzman recalling that it had been decided at the CTR meeting on May 15th that the research directors should write another letter to NCI and that "[a]s I recall it, you were going to prepare such a letter from me." 1004863309-3309. And Senkus wrote to Gori stating that "my role in the TWG is that of a scientific advisor. . . this role is confined to areas of chemical, analytical, physical and manufacturing problems related to cigarette smoke, tobacco composition, and physical and manufacturing characteristics of cigarettes," and then informed his boss, W.D. Hobbs, that "the other Research Directors will respond in the same vein." 501990170-0171; 500081721-1721; see also 501555598-5598.

127. And when Liggett Research Department director William Bates accepted formal membership on the TWG, he too carefully prefaced his acceptance with similar disclaiming language. His July 12, 1974 letter to James Peters of NCI stated:

> As a scientist who is extremely interest in ascertaining the facts about the areas of work with which the Tobacco Working Group is concerned, I am pleased to accept the invitation in your letter referred to above. Needless to say, however, you should understand that my services on the Group will be totally in my capacity as an individual and not as an employee or representative of Liggett and Myers Incorporated.

LG0267405-7405.

2. In Fact, Industry Scientists Never Intended To Make Any Affirmative Contribution To The Work Of The TWG

128. In the early 1970s, Defendants' lawyers and executives determined that their

scientist-representatives would not offer suggestions to the TWG about the experiments to conduct or projects to pursue in the search for a less hazardous cigarette. Outside industry counsel David Hardy wrote company counsel and executives on August 7, 1973 that:

> I have gotten from [CTR Scientific Director] Dr. Sheldon Sommers a list of suggested projects for the Tobacco Working Group . . . If you will arrange through Dr. Spears to find out which of this list of suggestions might be favorably considered by the Tobacco Working Group, Dr. Sommers will supply a proposed detailed protocol. . . . You will notice that a copy of this letter, as well as a copy of the suggested projects, is going to each General Counsel of the Institute members, who can take it up with their respective Scientific Directors, keeping in mind the stated limitations on the function of company scientists in connection with the Tobacco Working Group.

1005056343-6344 at 6343.

129. Philip Morris counsel Alexander Holtzman forwarded the list to Philip Morris scientific representative Helmut Wakeham on August 10, 1973. 2021016081-6085. Scientists marked up the list for potential priorities and circulated it to the scientific representatives on the TWG from the various cigarette companies. E.g., 000240215-0215; 2021016079-6080. **[REDACTED]**

On August 30, 1973 Wakeham wrote to his fellow scientific representatives Bates, Hughes, Senkus, and Spears confirming the substance of their conference call and advised that a meeting of lawyers and scientists was to take place on September 6, 1973. 000240213-0214.

130. This "meeting of lawyers and scientists" to which Wakeham referred was the September 6, 1973 meeting of the Committee of Counsel at 100 Park Avenue in New York. Those present included: Roemer (R.J. Reynolds counsel), Haas (Liggett counsel), Stevens (Lorillard), Holtzman (Philip Morris counsel), Ahrensfeld (TI), Bryant (B&W attorney),

Kornegay (Tobacco Institute), Austern (outside counsel), Panzer (Tobacco Institute), Topol (outside counsel), Jacobs (outside counsel), Senkus (R.J. Reynolds scientist), Spears (Lorillard scientist), Kastenbaum (T), Wakeham (Philip Morris scientist), Hardy (outside counsel), Shinn(outside counsel), Gastman (Lorillard), Greer (Liggett counsel), and Hetsko (American Tobacco counsel). With the input of the lawyers, the Defendants decided not to submit any of Sommers' proposals or make any additional research recommendations at all to the TWG. 000255835-5836; 680215434-5435.

131. **[REDACTED]**

132. Individual company research directors also withheld potentially useful information to the TWG, letting the group instead use its resources looking into questions Defendants had already explored. A December 3, 1975 Philip Morris Inter-Office Correspondence from T.S. Osdene to "File" and copied to H. Wakeham, F.E. Resnik, R.B. Seligman, W.F. Cannon, and R.G. Carpenter discussed the "Reconstituted Tobacco Sheet Workshop, Bethesda, Maryland, November 24, 1975." Osdene reported that Gori was exploring possibilities for a fifth NCI biological testing series and discussing variations of a prototype. Osdene commented: "In summary, the meeting was of great interest. Thus far, it appears that Gori is going down the road on which the tobacco manufacturers found

themselves some 5 to 10 years ago." 1003729912-9914 at 9914.

133. Not only did Defendants never intend to correct the path Gori was taking, it appears they never intended to work independently of the TWG to make or promote a less hazardous cigarette for as long as the TWG existed, either. For instance, Philip Morris scientist T.S. Osdene attended an October 1973 TWG meeting during which "Gori asked who should recommend 'a less hazardous cigarette', Gori or the industry? There was no reply from any industry representatives." 0000051661-1665 at 1664. Indeed, Defendants' intransigence reached beyond science and the refusal to cooperate in producing a less hazardous cigarette and extended to their refusal to cooperate in selling the public on one, as well. Again, as described by T.S. Osdene, at a TWG subcommittee meeting on April 2, 1974,

> [NCI TWG member Dr. Marvin] Schneiderman, 'We have found a less hazardous cigarette but it is not marketable or practical. We need more input from the tobacco companies: what can they market? I am tired of bull[deleted].' There were no comments from the members of the tobacco companies.

1003102962-2968 at 2965. Thus the apparent goal of Defendants was to use the TWG as a cover for their inactivity, and to ensure that the TWG did not make significant advancements, either.

3. Rather, The Purpose Of Industry Scientists' Involvement In TWG Was To Monitor TWG Activity For The Same Attorneys And Industry Groups Who Were Orchestrating The Defendants' Larger Conspiracy

134. The reason for this arm's-length approach to the TWG was Defendants' goal to monitor and adversely influence TWG activity. For instance, in an undated B&W document discussing Department of Health, Education and Welfare activity, that company outlined the Department's activities vis a vis smoking as follows:

> a) Developed epidemiological evidence indicating a relationship between smoking and various health problem including mortality, morbidity, emphysema, cardiovascular diseases, and lung cancer.
> b) Launched a propaganda program designed to alert the population to the "dangers from smoking".
> c) Pushed for legislation which would have the effect of reducing cigarette consumption.
> d) Initiated a research program designed to produce a "less hazardous cigarette".

HHS133 0992-0998. The document further noted:

> Of these four actions, the first three have been of such immediate concern that they have received most of the attention of the tobacco industry. However, the later is probably as important, or perhaps more important for the long-term future of the industry. Although work in this area is in its initial stages, the direction of this work seems clearly indicated and should be evaluated.
>
> ***
>
> One can logically expect that any reluctance on the part of industry to voluntarily produce commercial cigarettes on the basis of positive results from this program would result in legislation to force adoption. In all probability, little attention is likely to be given to the commercial acceptability of the [unreadable] from this program.
>
> ***

> Since industry has representatives on this committee, it should be possible to remain completely aware of all actions taken and to have at least some influence on these actions. If one assumes complete and frank interchange of information arising from within this committee among all companies, the companies should then operate from a common base.

HHS133 0992-0998 (emphasis added).

135. Lorillard's Alexander Spears echoed this sentiment in a March 9, 1972 document entitled, "Thoughts on Withdrawing from the Tobacco Working Group." Spears stated:

> If I were to withdraw, Lorillard would lose considerable insight into the workings of the National Cancer Institute program with respect to cigarettes. There is a very real possibility that this program is going to have a profound effect on the cigarette industry, and I believe that we should be aware of these effects as soon as they become clear. We also have some significant influence on the course of the detailed activities and, therefore, some effect on ultimate results. We cannot, however, though my participation, expect to divert the main objective of the program.

01240178-0178 (emphasis added).

136. It is no surprise, therefore, that rather than report scientific developments to in-house researchers and seek their feedback for the collective effort, Defendants' scientific representatives on the TWG reported directly to their respective company counsel, instead. For instance, over a number of years, R.J. Reynolds's Murray Senkus sent regular "Confidential – For Legal Counsel" summaries of TWG activity to Reynolds counsel Henry Ramm. E.g., 501556259-6263; 501555964-5966; 500502060-2063; 501990370-0374. Philip Morris's Osdene and Wakeham did the same for their counsel, Alex Holtzman. 1005070117-0121; 1005070122-0122.

137. In-house counsel in turn circulated this information to Defendants' outside counsel and industry groups for the purpose of monitoring the TWG. For example, on November 19,

1970, Philip Morris attorney Alex Holtzman advised James Bowling of Philip Morris that William Kloepfer of the Tobacco Institute had telephoned him

> to ask if we [Philip Morris] has any intelligence concerning the Tobacco Working Group's session with Dr. Auerbach. I told him that Wakeham had made a report covering the meeting. Kloepfer asked if we could 'declassify' the portion of the report dealing with Auerbach and send him a copy. Do you have any objection to sending Kloepfer this information?

1005070141-0141. And on February 22, 1973, Alexander Holtzman wrote to Horace Kornegay, President of the Tobacco Institute, advising that Wakeham had been invited to a meeting of two subcommittees of the TWG on March 8, 1973 by Gori's secretary. Holtzman also advised that Gori's secretary advised that Gori would "set forth his ideas for future projects of the Tobacco Working Group and present a proposed budget for those budgets" at a meeting on March 25, 1973. 68014 2648. Holtzman mused: "Perhaps Dr. Wakeham and others who may attend the meetings on March 8 will get some additional information about Gori's plans at that time." Id.

138. Like the Tobacco Institute, CTR similarly was kept in the loop. On May 31, 1974, Defendants' outside counsel, David Hardy of Shook, Hardy & Bacon, wrote to members of the CTR Research Review Committee/Industry Research Committee advising there would be two upcoming meetings in June and August at CTR and that summaries were "to be prepared with, if applicable to the topic, an emphasis on objectives (or relevancy), cost, source of funds, and supervisory information" on among others, the TWG. William Bates, Liggett's TWG representative, was assigned responsibility for the TWG. 2015040862-0863. Bates provided the requested material for the Research Review Committee/Industry Research Committee related to the TWG to David Hardy by letter dated July 30, 1974. Among the

material he included was "a draft copy of the annual report for the Tobacco Working Group," which he indicated "should be used only for information purposes for members of the committee" because of the draft nature of the report. LG0208389-8389; 680143084-3084. The draft report of the TWG was discussed at a subsequent research committee meeting at which there was a question by one of the participants asking, "Do we disassociate ourselves with this document? If so, should we reaffirm this or is this necessary? . . . Co's R&R Directors can submit written reservations?" 03540217-0225 (emphasis added). That same observer attributed a comment by B&W's Wally Hughes that the "'Experimental Cigarette Report' to be presented at [the] Sept[ember] TWG [meeting is] going to be much more dangerous." Id. at 0218 (emphasis added).

139. And a letter dated August 30, 1974 letter from David Hardy to DeBaun Bryant, Vice President and General Counsel of B&W, enclosed a copy of the draft TWG report, and stated: "As I indicated on the telephone, no one on the Industry Research Committee had ever seen it except the company research directors . . . I was under the impression that you and I were both receiving all of the Tobacco Working Group material." 680143084-3084. As a result, CTR was able to regularly monitor and discuss TWG activity. E.g., December 9, 1976 Notes of Meeting at CTR.

140. Lorillard counsel Arthur Stevens similarly kept outside counsel William Shinn, of Shook, Hardy, & Bacon, up to date on TWG activity. On April 23, 1975, Shinn thanked Stevens for material Stevens sent him on the TWG: "The status report on the smoking and health program and policies and procedures manual were most welcome. I have been trying to keep abreast of the Tobacco Working Group projects and found the material very helpful."

03753993-3994. And on March 25, 1977, Shinn noted further, "I think you sent [these documents] to me in the first place" and that "I do . . . try to review the TWG material and very much appreciate receiving any relevant material available. It would probably be useful to have a list of the meetings held over the past year so that we can determine whether or not we have received reports on all of them." 03646227-6228 at 6227.

4. The Purpose Behind The Attorneys' And Industry Groups' Monitoring Was To Influence The TWG By Curbing Its Effectiveness By Manipulation And Cooptation

141. The purpose of this monitoring was not benign. Rather, Defendants' representatives clearly were placed in their position for the purpose of attempting to influence the type of research being conducted by the TWG – at the instruction and direction of Defendants' counsel – and to curb any progress by the TWG that might expose Defendants' fraud.

142. A particularly poignant example was Defendants' response to the inhalation studies involving beagles by neutral scientist Oscar Auerbach. Defendants claim in Chapter Three that because "existing [scientific] test methods were inadequate to evaluate the relative hazard of alternative cigarette designs, . . . [the TWG] devoted considerable effort and resources to development of an inhalation bioassay." JD. PFF, pp. 323-25. In particular, Defendants point to Dr. Auerbach's beagle inhalation work as an example of how the United States' premature termination of TWG has inhibited less hazardous cigarette advancements, complaining, "researchers still had not developed and validated a standard inhalation bioassay that could reliably be used by scientists and public health advocates to judge the relative reduction in risk from various alternative cigarette designs." Id. at 326.

143. Despite these ostensible protestations, the truth is that Defendants themselves are to blame for this situation, as Defendants engaged in a full-blown effort to curtail and ultimately to neutralize Dr. Auerbach's work. Dr. Auerbach gave a presentation of his work at the November 9-10, 1970 meeting of the TWG. 501190296-0306 at 0299-0301; 01412382-2389; 01246488-6489. Defendants immediately zeroed in on the threat it posed. A November 13, 1970 memorandum from Murray Senkus to E.A. Vassallo reported the TWG minutes of this presentation. 501990296-0306. Senkus acknowledged that the "slides [Dr. Auerbach] now has in hand are of excellent quality." 501990296-0306 at 0300 And in a separate memorandum A.W. Spears remarked to Lorillard's Curtis Judge and Arthur Stevens on Auerbach's presentation, "[t]o the writer, the slides represented obvious lung pathology with increased cellular proliferation with smoke exposure," and noted further that a cytologist present at the meeting observed, "if you saw the same kind of cells in the human lung you would remove the lung from the human being." 01246488-6489. On November 19, 1970, Alex Holtzman of Philip Morris advised James Bowling of Philip Morris that William Kloepfer of the Tobacco Institute had telephoned him "to ask if we [Philip Morris] have any intelligence concerning the Tobacco Working Group's session with Dr. Auerbach. I told him that Wakeham had made a report covering the meeting. Kloepfer asked if we could 'declassify' the portion of the report dealing with Auerbach and send him a copy. Do you have any objection to sending Kloepfer this information?" 1005070141-0141.

144. Dr. Auerbach invited industry pathologists – including CTR Scientific Director Sheldon Sommers – to come to his lab and review his work. 01246488-6489 at 6489. Instead of engaging Auerbach by accepting that offer, Defendants decided to do what they

could to block his work. Industry lawyer Ed Jacobs, counsel to CTR and to R.J. Reynolds, instructed R.J. Reynolds scientists Murray Senkus and Alan Rodgman, as well as other industry members, that they should prevent the TWG from performing dog inhalation studies such as these deemed necessary to develop new products on the grounds that it would be an admission by Defendants that existing cigarette products were harmful, and lawyers – not the scientists -- feared that these experiments might show proof of nicotine habituation. 5156872408-2456 at 2424-2429; 655098268-8268; 50155624-5624.

145. After Gori had sent Wakeham an advance copy of Auerbach's proposed experiments, a meeting was held at CTR on December 21, 1971 to discuss Defendants' response. Edwin Jacob sent a letter to B&W's DeBaun Bryant, enclosing his notes from the meeting. Jacobs reported that Alex Holtzman of Philip Morris had called the meeting and that Wakeham, another Philip Morris scientist, R.J. Reynolds's counsel Roemer, Senkus, as well as CTR's Thomas Hoyt, Robert Hockett, and Vincent Lisanti attended and that the following points emerged:

> 1. CTR could provide scientific points, but should not present to the government objections to the work being done.
>
> 2. If objections were to be presented, it was probably best that they be presented to Gori, rather than at a higher (political) level. This would indicate that they should be presented by the scientists who were members of the Tobacco Working Group.
>
> 3. The objections should not be directed to specific points of the protocol that could be "cured" (e.g., which tobaccos to use, whether to incorporate a substitute larynx, etc.). Rather, they should be objections which went to and emphasized the invalidity of the entire experiment.

680264518-4520 at 4519. It was decided "after ascertaining by a phone call from Wakeham to Gori that Gori planned to make his decision on the matter by late January so that views

presented after mid-January would be of little effect," that there would be a meeting of the industry scientists on the TWG at CTR on January 17, 1972, and that the scientists would then meet with Gori on January 18, 1972. 680264518-4520. In advance of that meeting, it is believed that the scientific directors sent a letter to Gori urging against these experiments. See 5156872408-2456 at 2429. Though signed by the scientists, attorney Ed Jacobs drafted this letter. Id.

146. On December 22, 1971, Helmut Wakeham sent a letter to Bates, Senkus, Spears, and Hughes enclosing "the preliminary proposal from Drs. Auerbach and Hammond to the National Cancer Institute for a 'proposed experiment to test the effects of three different types of cigarettes on male beagle dogs.' The very great probability that this proposal will be accepted and funded by the N.C.I. is a matter of considerable concern to the tobacco industry." 1000299103-9104 at 9103 (emphasis added). Wakeham advised that Defendants planned to have the research scientists meet "with both legal and scientific people" at CTR on January 17 "to clarify the points which would be made to Dr. Gori and then visit Dr. Gori on the following day in Washington D.C. for the discussion with him." 1000299103-9104 at 9103. He concluded, "I feel that if we make a strong presentation he may downgrade the priority of this proposed test sufficiently so that there may not be more than a 50% chance of the proposal being funded." 1000299103-9104 at 9104. If that presentation failed, CTR had determined that "CTR's public relations counsel" would be tasked with preparing a document setting out the "shortcomings of the experiment." 501990307-0308 at 0308 (emphasis added).

147. A Lorillard document entitled, "MINUTES Meeting in Dr. Gio B. Gori's Office

National Cancer Institute Bethesda, Maryland January 18, 1972" confirmed that the meeting did indeed take place. See 01412335-2338. Those present at the meeting included Wakeham, Senkus, Hughes, Bates, Spears, Gori and Owen. Gori explained that the purpose of the experiment was "to determine the effect of nicotine on cardiovascular disease in the dog, in a chronic fashion, in a smoking environment." Id. at 2335. He concluded that, despite the scientists' objections, "the experiment would proceed." 01412335-2338 at 2337.

148. Yet Defendants' damage was done. A report by Hughes on the same meeting ("Discussion with Dr. G. Gori N.C.I. - Bethesda January 18, 1972") noted that "[a]s best as I can judge, if he is able to accommodate our criticism, the experiment is not likely to show any significant differences, since most of our criticisms will tend to dilute the experiment." 680142682-2683.

149. A February 21, 1972 letter from William Shinn of Shook, Hardy & Bacon to the Tobacco Institute's Thomas Ahrensfeld and industry counsel further discussed the Auerbach matter. Shinn reported that:

> Dave Hardy hopes that you are considering the implications of NCI approval of the second Auerbach dog project. We understand that the project either has been given the go-ahead by Dr. Gori or is likely to receive it. What will the industry's position be in the event this receives considerable publicity? Should the research directors who serve on the Tobacco Working Group send a letter setting forth their position? If no response is made, would the industry's silence confer approval?

680041440-1441.

150. And a March 14, 1972 Philip Morris Inter-office Correspondence from Alexander Holtzman to Thomas Ahrensfeld described a "Meeting of Counsel at Tobacco Institute, March 10, 1972." At the meeting, there was a discussion of "[w]hether the research directors

should write a letter to Dr. Gori recording their objections to the repetition of the Auerbach/ Hammond study." 1005055229-5230. On March 24, 1972 a joint letter was sent from Defendants' representatives Bates, Hughes, Senkus, Spears and Wakeham to Gori "to express in writing [their] major objections." 680231761-1762.

151. Following the termination of the TWG, Gio Gori took a sabbatical at Johns Hopkins, but thereafter returned in 1979 to resume the lead position at the NCI Smoking and Health Program. When he did finally leave NCI, he began working thereafter at the Franklin Institute, thanks in large part to a large grant by B&W. Gori continually has been a spokesperson and consultant for the industry since that time. See, e.g., Section Seven, below.

152. Another government participant in the TWG, Dr. T.C. Tso of the Agricultural Research Service ("ARS") of the United States Department of Agriculture ("USDA"), apparently covertly shared information with Defendants about TWG activities. In a March 10, 1975 letter from BATCo scientist D.G. Felton to various industry personnel worldwide, he enclosed material on the TWG. Felton advised:

> Following the meeting of the TWG held at Bethesda on February 18-19th, I have received, from Dr. T.C. Tso, a confidential copy of his internal report on the proceedings and, in accordance with my usual practice, I enclose a photocopy for your personal information. To preserve the confidentiality of the source, please do not discuss this report with outsiders.

105366949-6955. Tso also had a meeting with J.C.B. Ehringhaus of the Tobacco Institute on July 23, 1975 in which he provided a status report on the TWG. TIMN449671-9671.

153. Philip Morris secured the services of Tso upon his retirement in 1983. Philip Morris, along with two other companies with whom he had worked at the TWG, approached Tso prior to his retirement from the Federal government, but he was persuaded to join Philip

Morris by Tom Osdene, who had regularly participated in TWG activities for that company. Deposition of T.C. Tso, United States v. Philip Morris, June 5, 2002, 177-184. Tso was a paid consultant for Philip Morris until 1997. Id. at 186-87.

5. Defendants' Claims About The Reason For The Demise of TWG, And The Role Industry Played Following That Demise Are Inaccurate And Inflated, To Say The Least

154. Defendants claim in Chapter Three that the dissolution of the TWG slowed progress toward the development of a less hazardous cigarette, as it had been successful in pushing some products to market and, with more time, could have led to others. JD. PFF, ¶¶ 667-676. In a different setting, however, the industry denied any value of the TWG work – implying that continuing it would not have aided further in the effort. Specifically, in an interview discussing the impact of the TWG on companies creating less hazardous products, an unnamed industry spokesman for one unnamed cigarette manufacturer replied, "It's ridiculous to say that the little bit of money Dr. Gori's program put into cigarette design had any effect [as a stimulus to development and marketing of these products.]" "Smoking Program May Have Succeeded, Rauscher Says, Looking At Its Budget," The Cancer Letter, Vol. 2, No. 30, Jul 23, 1976, pp. 4-5.

155. Further, in their pleadings, Defendants go on to say that the decision to dissolve the TWG was precipitated by a change in administration, asserting that new Department of Health, Education and Welfare Secretary and "lawyer" Joseph Califano interposed a "crusade" against all smoking, that quitting was the only answer – suggesting that any efforts to make a less hazardous cigarette ran contrary to that position and therefore could not be countenanced by the administration. JD. PFF, ¶¶ 654-674. Again, however, the facts

confound Defendants' argument. While Secretary Califano clearly did favor that a substantial portion of the United States' work on smoking be targeted at prevention and quitting, he also clearly acknowledged the difficulty of quitting, the freedom of individuals to make their own informed decisions and continue to smoke if they so choose, and the need for the availability of a less hazardous cigarette for those who chose to continue – all of which he stated publicly and converted into policy, as reflected in a 1978 address he gave:

> From my private experience, I bring the knowledge that to stop smoking can be the most difficult thing a human being can do.
>
> From my personal philosophy, I bring a profound and unyielding belief in freedom, free will and free choice. I treasure the nation which provides this to 218 million citizens.
>
> But I recognize that a choice can be free only if it is informed, that a decision can be genuinely voluntary only if it is based on all the information.
>
> As the chief public health official of this government, the Surgeon General and I are determined to fulfill our responsibility to provide information to permit American citizens to make a genuinely free choice about smoking and their own health. That is one of the central objectives of the program we propose today.
>
> ***
>
> Over the past generation, research in the epidemiology of smoking has been well-established and has shown beyond doubt the harmful and fatal effects of smoking. Our support for continued research of this type will continue – including research aimed at creating a less hazardous cigarette.

Address of Joseph A. Califano, Jr., January 11, 1978, at the National Interagency Council on Smoking and Health, Washington, D.C. In other words, what the Secretary sought to do, and what the Defendants apparently opposed, was to tell people all of the facts, and then give them the opportunity to exercise whichever option they felt best for them – be it quitting or continued smoking, while striving to facilitate the former and reduce the risk of the latter.

B. Defendants' Argument That The United States Has "Disparaged And

Impeded" Their Ability To Produce And Market Less Hazardous Cigarettes To The Point That The United States Is Estopped From Bringing Its "Less Hazardous" Conspiracy Claims Is A Red Herring

156. The United States does not market cigarettes; it is not the United States' obligation to develop less hazardous cigarettes or to test the ones Defendant Cigarette Companies develop. A less hazardous cigarette, if found, would be a competitive advantage. Defendants' failure to create one resulted from their collusion to protect the market for conventional cigarettes. They have done this both by avoiding the implicit admission of harmfulness that marketing a product as "less hazardous" would contain, and by avoiding regulation of health claims for these new products that carried with it the threat of regulation of all cigarettes. In short, changes in public policy from administration to administration have not acted as a legal or equitable bar to either the United States' cause of action or the relief it seeks. Defendants' proposed findings of fact, to the extent they are accurate, amount to a complaint about the vagaries of politics and policy, not law.

157. Defendants have intentionally or conveniently confused the concept of something that is "safer" in that it poses less risk than other cigarettes with the concept of a cigarette being "truly safe" – i.e., posing no risk. But the particular United States administrations and the public health advocates to which Defendants refer have not. As shown by the TWG work, they understood that even if risk could be reduced in a way that was both consumer-acceptable and objectively measurable, the society was still left with a product that still poses unacceptably high risks of serious health consequences. Therefore, absent a product that did not pose mortal risk when used as its producers desire it, they opposed "safer" as a goal, especially given the addictive qualities of each traditional and "novel" cigarette products by

virtue of their nicotine content.

158. The Defendants wholly fail in Chapter Three to address the core of the United States' conspiracy claim – a conspiracy to limit competition and confound the natural market process by fraud. There has been broad demand for products that reduce risk, and by their own documents and testimony, Defendants have had many ideas both to change certain individual properties of traditional cigarettes to potentially specifically reduce harm causing agents (which Defendants fail to mention at all here), as well as entirely new products. Yet Defendants do not explain why they failed to fully develop and/or market cigarettes that they themselves believed had the capacity to reduce risk. Hence, the impression their proposed findings present that there have only been five or six ideas about reducing risk only reveals that even now they are hiding and understating what their scientists have believed to be the universe of possibilities. At the same time as each Defendant claims to be working slavishly but unsuccessfully to develop products that they (internally) believe reduce risk, they are unwilling to expose them to the criticisms of their competitors' market and even to potential regulation for evaluation of the products and their claims. If they believe they have a safer product, they should be out there selling and promoting it. For if by their own theory every smoker and potential smoker already know about the mortal risks of smoking, the clamor to reduce risk should be deafening, and the riches waiting to be rewarded astounding. Instead, the evidence shows that Defendant Cigarette Companies have sought to reap that reward by delivering products they suggested were less hazardous but they knew were not (e.g., "light" cigarettes), and otherwise were doing just enough to mollify demand that they "try" to do something more to reduce risk.

IV. UNITED STATES' RESPONSE TO CHAPTER FOUR

159. Chapter Four of Defendants' Preliminary Proposed Findings of Fact denies that any of Defendants' marketing efforts are targeted at encouraging young people to start smoking or to continue smoking, and argues that peer and parental influences, not Defendants' marketing efforts, cause youth smoking initiation. As extensively set forth in the United States' Preliminary Proposed Findings of Fact, U.S. PFF, ¶ 1354-1924, and as reprised briefly below, Defendants' internal marketing documents demonstrate that they tailored – and tailor – their marketing efforts to encourage youth smoking initiation. The reports of the Surgeon General and other scientific evidence also show that Defendants' marketing is a substantial contributing factor in youth smoking initiation and the continuation of youth smoking. Moreover, the fact that peer and parental influences are predictors of youth smoking behavior does not refute the fact that Defendants' marketing was – and continues to be – a substantial contributing factor in youth smoking initiation and the continuation of youth smoking.

A. Defendants' Internal Documents Demonstrate That Their Cigarette Marketing Targets Young People And Is Not Undertaken Only To Switch Adult Smokers Between Brands

160. Defendants claim that cigarettes are a "mature product category" for which advertising and marketing expenditures "cannot and do not affect primary demand." JD. PFF, ¶ 825-830.

161. Cigarettes are not a "mature product category." The "mature product" theory defines a "mature" industry as one wherein the growth has slowed and the product is well known to consumers, and argues that, because sales of a product have peaked, advertising can

only shift demand among competitors rather than increase demand. This theory has been discredited within the field of marketing. Expert Report of Dean M. Krugman, Ph.D. in United States v. Philip Morris; Expert Report of Robert Dolan, Ph.D. in United States v. Philip. For example, one published, peer-reviewed article concluded that the concept of a "mature product" does not exist in most cases and that growth is often not regular, and specifically stated that the concept of the "mature product" does not apply to cigarettes. N.K. Dhalla & S. Yuspeth, "Forget The Product Life Cycle Concept," 54 Harv. Bus. Rev. 102-112 (1976).

162. Defendants claim that all of their cigarette marketing serves the primary purpose of retaining loyal customers ("brand retention") and the secondary purpose of encouraging smokers to switch brands. JD. PFF, ¶779-780. They deny that any of their marketing efforts are aimed at encouraging young people to start smoking or to continue smoking. JD. PFF, ¶ 825-830. Defendants cite no internal company documents that would support brand-switching as the primary goal of all of their marketing efforts. In fact, Defendants' assertion that they only market to adult brand switchers are belied by their internal documents.

163. Contrary to Defendants' assertions that cigarettes are a "mature product," cigarette marketing both enables demand and grows demand. Expert Report of Dean Krugman, Ph.D. in United States v. Philip Morris. As Defendants are well aware, and as their internal documents plainly show, smokers are highly loyal, and the number of smokers who switch brands is very small. U.S. PFF, ¶ 1354-1924. Expenditure analysis has shown that the economic value of brand switching cannot justify cigarette marketing expenditures. M. Siegel, J. Peddicord et.al., "The Extent of Cigarette Brand Switching Among Current

Smokers: Data from the 1986 Adult Use of Tobacco Survey," 12(1) American Journal of Preventive Medicine 14-16 (1996).

164. Defendants' internal documents show that they know that marketing encourages initiation and continued consumption by young people. These documents also show that Cigarette Company Defendants marketed to these young smokers, whom Defendants knew they must recruit in order to replace smokers who have quit or have died. In these internal documents, Cigarette Company Defendants demonstrate their awareness that the majority of smokers began smoking as youths and develop brand loyalty as youths, that youths are highly susceptible to advertising, and that persons who began smoking when they were teenagers were very likely to remain life time smokers. Moreover, in these documents, Defendants express the view that stimulating youth smoking initiation and retaining and increasing their share of the youth market was crucial to the success of their businesses. U.S. PFF, ¶ 1354-1924. The following documents illustrate Defendants' efforts to market to youth.

165. An October 7, 1953 letter from George Weissman, Vice President of Philip Morris, discussed an August 1953 Elmo Roper report on a study of young smokers commissioned by Philip Morris, stating that "industry figures indicate that 47% of the population, 15 years and older, smokes cigarettes" and that "we have our greatest strength in the 15-24 age group." 2022239142-9147 at 9142, 9144.

166. The "1969 Survey of Cigarette Smoking Behavior and Attitudes" performed by Eastman Chemical Products for Philip Morris contained a detailed analysis of beginning smokers, including interviews with twelve to fourteen year olds. 1001806761-6828 at 6784-6789.

167. A March 31, 1981 report conducted by the Philip Morris Research Center entitled "Young Smokers Prevalence, Trends, Implications, and Related Demographic Trends" stated that "Today's teenager is tomorrow's potential regular customer, and the overwhelming majority of smokers first begin to smoke while still in their teens. . . . [I]t is during the teenage years that the initial brand choice is made." 1000390803-0855 at 0808.

168. A September 22, 1989 report prepared for Philip Morris by its advertising agency Leo Burnett U.S.A. described Philip Morris's marketing's target audience as a "moving target in transition from adolescence to young adulthood." 2048677983-8044 at 7994.

169. An August 30, 1978 Lorillard memorandum stated: "The success of NEWPORT has been fantastic during the past few years. . . . [[T]he base of our business is the high school student**.** Newport in the 1970s is turning into the Marlboro of the 1960s and 1970s." 03537131-7132 at 7131.

170. A 1976 Brown & Williamson document containing information drawn from a study of smokers stated that "[t]he 16-25 age group has consistently accounted for the highest level of starters." 170040333-0333.

171. A July 9, 1984 report circulated to the heads of B&W's Marketing and Research Development departments stated that "[o]ur future business depends on the size of [the] starter population." 536000000-0090 at 0016.

172. In 1986, an internal "BATCo General Marketing Policies" document instructed BATCo's employees that "[o]verall BAT strategy will be market specific and multi-brand but within each major market major effort behind one brand aimed at starters/young adults." 109870521-0561.

173. In 1958 and 1959, R.J. Reynolds commissioned a series of studies of high school and college students, interviewing in sum almost 20,000 students as young as high school freshmen regarding their smoking habits and brand preferences. 501113763-3764; 501113743-3749.

174. In a November 26, 1974 memorandum entitled "R.J. Reynolds Tobacco Company Domestic Operating Goals," R.J. Reynolds stated its "[p]rimary goal in 1975 and ensuing years is to reestablish R.J. Reynolds's share of growth in the domestic cigarette industry," by targeting the "14-24 age group" who, "[a]s they mature, will account for key share of cigarette volume for next 25 years. Winston has 14% of this franchise, while Marlboro has 33%. - SALEM has 9%--Kool has 17%." The memorandum indicated that R.J. Reynolds "will direct advertising appeal to this young adult group without alienating the brand's current franchise." 500796928-6934 at 6928.

175. In 1980, the R.J. Reynolds Marketing Development Department issued a series of internal reports entitled "Teenage Smokers (14-17) and New Adult Smokers and Quitters" which surveyed the smoking habits of fourteen to seventeen year olds. 501443912-3921; 501098917-8922; 500768429-8438; 500768427-8428; 501254289-4301; 501254267-4283; 501757367-7379; 500768754-8754; 500794841-4843.

176. A September 27, 1982 memorandum written by Diane Burrows, R.J. Reynolds Market Research Department, and circulated to L.W. Hall, Jr. Vice President of R.J. Reynolds Marketing Department, stated: "The loss of younger adult males and teenagers is more important to the long term, drying up the supply of new smokers to replace the old. This is not a fixed loss to the industry: its importance increases with time. In ten years,

increased rate per day would have been expected to raise this group's consumption by more than 50%." 503011370-1378 at 1371.

B. The United States Has Not Concluded That Defendants' Marketing Efforts Are Directed Only At Adult Brand-Switchers

177. Defendants incorrectly assert that the "Government" has "consistently concluded" that cigarette marketing has been directed to adult brand switchers. JD. PFF, ¶ 781. Defendants' citations do not support this contention.

1. The Surgeon General's Reports And Other Publications Have Concluded That Cigarette Marketing Encourages Youth Smoking Initiation

178. In the 1994 Surgeon General's Report Youth and Tobacco: Preventing Tobacco Use Among Young People, the Surgeon General stated that: "A substantial and growing body of scientific literature has reported on young people's awareness of, and attitudes about, cigarette advertising and promotional activities. Research has also focused on the effects of these activities on the psychosocial risk factors for beginning to smoke. Considered together, these studies offer a compelling argument for the mediated relationship of cigarette advertising and adolescent smoking." Id. at 188.

179. In the same report, the Surgeon General dismissed Defendants' claims that their marketing activities were directed only toward adult brand-shifters: "Even though the tobacco industry asserts that the sole purpose of advertising and promotional activities is to maintain and potentially increase market shares of adult consumers, it appears that some young people are recruited to smoking by brand advertising. Two sources of epidemiologic data support his assertion. Adolescents consistently smoke the most advertised brands of

cigarettes. . . . Moreover, following the introduction of advertisements that appeal to young people, the prevalence of the use of those brands – or even the prevalence of smoking altogether – increases." Id. at 194.

180. The Surgeon General further stated in the 1994 Report that: "Current research suggests that pervasive tobacco promotion has two major effects: it creates the perception that more people smoke than actually do, and it provides a conduit between actual self-image and ideal self-image – in other words, smoking is made to look cool. Whether causal or not, these effects foster the uptake of smoking, initiating for many a dismal and relentless chain of events." Id. at iii.

181. In the 1995 United States Department of Education publication Youth and Tobacco: Preventing Tobacco Use Among Young People, which was adapted from the 1994 Surgeon General's Report, the Surgeon General concluded that "[c]igarette advertising appears to increase young people's risk of smoking by affecting their perceptions of the pervasiveness, image, and the function of smoking." The Surgeon General further found that:

> In presenting attractive images of smokers, cigarette advertisements appear to stimulate some adolescents who have relatively low self-images to adopt smoking as a way to improve their own self-image. Cigarette advertising also appears to affect adolescents' perceptions of the pervasiveness of smoking, images of smokers, and the function of smoking. Since these perceptions are psychosocial risk factors for the initiation of smoking, cigarette advertising appears to increase young people's risk of smoking.

Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General at p. 6 and 8 (1995).

182. The Surgeon General also stated in that publication: "Cigarette smoking is a risk behavior portrayed by advertising and role models as a way to be attractive to one's peers, . . .

and smoking appears to contribute to a positive social image in some settings. . . The functions of smoking established by advertising and adult role models coincide with the challenges of adolescence and thus make this age group the most vulnerable for experimentation and initiation." Id. at 94.

183. In the 1998 Surgeon General's Report Tobacco Use Among U.S. Racial/Ethnic Minority Groups, the Surgeon General stated that "[a]dvertising is an important influence on tobacco use initiation and maintenance. . . . Cigarette advertising and promotion may stimulate cigarette consumption by. . .encouraging children and adolescents to experiment with and initiate regular use of cigarettes. . . . In addition, cigarette advertising appears to influence the perceptions of youths and adults about the pervasiveness of cigarette smoking and the images they hold of smokers." This 1998 Report further concluded: "Available data indicate that young people smoke the brands that are most heavily advertised. In 1993, the three most heavily advertised brands of cigarettes, Marlboro, Camel, and Newport, were the most commonly purchased brands among adolescent smokers." Id. at 220.

184. In the 2000 Surgeon General's Report Reducing Tobacco Use, the Surgeon General stated that "[i]ntensive review of the available data . . . suggests a positive correlation between level of advertising and overall tobacco consumption – that is, as advertising funds increase, the amount of tobacco products purchased by consumers also increases." Moreover, "indirect evidence of the importance of advertising and promotion to the tobacco industry is provided by surveys that suggest that most adolescents can recall certain tobacco advertisements, logos, or brand insignia; these surveys correlate such recall with smoking intent, initiation, or level of consumption." Id. at 162.

185. Contrary to Defendants' assertion that their main purpose in advertising is to maintain brand loyalty and increase market share among current smokers, the Surgeon General found that "considerable evidence" supported the hypothesis that "advertising and promotion recruit new smokers" in the 2000 Report. The Surgeon General stated: "Attempts to regulate advertising and promotion of tobacco products were initiated in the United States almost immediately after the appearance of the 1994 report to the Surgeon General on the health consequences of smoking. Underlying these attempts is the hypothesis that advertising and promotion recruit new smokers and retain current ones, thereby perpetuating a great risk to public health. The tobacco industry asserts that the purpose of marketing is to maintain brand loyalty. Considerable evidence has accumulated showing that advertising and promotion are perhaps the main motivators for adopting and maintaining tobacco use." Id. at 14.

186. Regarding the Joe Camel campaign, the Surgeon General wrote in this Report: "The role of advertising is perhaps best epitomized by R.J. Reynolds Tobacco Company's Camel brand campaign (initiated in 1988) using the cartoon character 'Joe Camel.' Considerable research has demonstrated the appeal of this character to young people and the influence that the advertising campaign had on minors' understanding of tobacco use and on their decision to smoke." Id. at 15. Moreover, "an increase in smoking initiation among adolescents during 1985-1989 has been ecologically associated with considerable increases in promotion expenditures [by the tobacco industry], as exemplified by the Joe Camel campaign." Id. at 162.

187. Other reputable experts have concurred with the conclusions drawn by the

Surgeon General, as discussed below.

188. Monograph 14: Changing Adolescent Smoking Prevalence, a 2001 publication of the United States Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, found: "Tobacco advertising and promotional activities are an important catalyst in the smoking initiation process. A review of the existing evidence on the relationship between exposure to advertising or having a tobacco promotional item and smoking behavior . . . suggests that there is a causal relationship between tobacco marketing and smoking initiation." Changing Adolescent Smoking. Smoking and Tobacco Control Monograph No. 14. Bethesda, MD: U.S. Department of Health and Human Services, Public Health Service, National Institutes of Health, National Cancer Institute, at 6 (Nov. 2001).

189. Regarding the numerous studies which examine the role of tobacco advertising and promotion in smoking initiation, Monograph 14 found that these studies

> comprise an impressive body of evidence that tobacco advertising and promotional activities are important catalysts in the smoking initiation process. . . . [W]hen [these studies are] viewed as a group, . . . the conclusion that there is a causal relationship between tobacco marketing and smoking initiation seems unassailable. . . . [T]obacco advertisements are particularly attractive to adolescents who, for one reason or another, are looking for an identity that the images are carefully designed to offer.

Id. at 210.

190. The Institute of Medicine publication "Growing Up Tobacco Free, Preventing Nicotine Addiction in Children and Youths" concluded: "The images typically associated with advertising and promotion convey the message that tobacco use is a desirable, socially approved, safe and healthful, and widely practiced behavior among adults, whom children

and young people want to emulate. As a result, tobacco advertising and promotion undoubtedly contribute to multiple and convergent psychological influences that lead children and youths to begin using these products and to become addicted to them." The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of the appropriate professions in the examination of policy matters pertaining to the health of the public. In this, the Institute acts under both the Academy's 1863 charter responsibility to be an adviser to the Federal Government and its own initiative in identifying issues of medical care, research, and education. B.S. Lynch & R.J. Bonnie, eds., "Growing Up Tobacco Free, Preventing Nicotine Addiction in Children and Youths," p.131 (1994).

191. In his September 19, 2002 testimony to the Senate Committee on Health, Education, Labor and Pensions Regarding FDA Regulation of Tobacco, Dr. Ronald M. Davis, MD, Director of the Center for Health Promotion and Disease Prevention at the Henry Ford Health System in Detroit, Michigan, speaking on behalf of the American Medical Association, stated: "Evidence that tobacco advertising and promotion increase tobacco use by children and adolescents comes from cross-sectional studies, longitudinal studies, and studies on the relationship between cigarette advertising and brand preference among youth. . . . Based on my review of the evidence, I conclude that tobacco advertising and promotion increase aggregate tobacco consumption, in part through a material effect on smoking by youth." September 19, 2002 Testimony of Dr. Ronald M. Davis, MD to Senate Committee on Health, Education, Labor and Pensions.

192. The 1992 United Kingdom Department of Health, Economics and Operational

Research Division, publication "The Effect of Tobacco Advertising on Tobacco Consumption: A Discussion Document Reviewing the Evidence" concluded that the main results of their review "based on statistical analysis of tobacco advertising and consumption . . . are as follows:

> i. international comparisons: . . . These inter-country studies have found an effect, but there is a question mark about the direction of causation. Societal attitudes towards smoking may differ internationally, leading to lower levels of smoking and stricter controls on advertising in some countries than in others, thus creating an association between the two without the controls causing a lower tobacco consumption.
> ii. year-to-year variations in advertising expenditure within countries: . . . the great majority of the results [of aggregate statistical studies] point in the same direction - towards positive impact [on tobacco consumption]. The balance of evidence thus supports the conclusion that advertising does have a positive impact on consumption.
> iii. advertising bans in other countries: . . . In each case the banning of advertising was followed by a fall in smoking on a scale which cannot reasonably be attributed to other factors [other than the advertising ban].

"Summary and Conclusions" at 22 (1992).

2. Defendants' Citations Do Not Support Their Assertion That The United States Has Concluded That Defendants' Marketing Efforts Are Directed Only At Adult Brand-Switchers

193. Defendants misleadingly cite from the 1979 Surgeon General's report, stating that the Surgeon General "found" that, as the cigarette industry argues, their advertising acts to shift brand share. JD. PFF, ¶ 850. The portion of the Report cited to by Defendants does not include the findings of the Surgeon General, but is a literature review; the specific portion that Defendants cite is the description of one article's conclusion. As discussed above, the Surgeon General's Reports have consistently concluded that cigarette marketing encourages youth smoking initiation and continuation of youth smoking.

194. Defendants cite numerous quotations from various Federal Trade Commission ("FTC") employees to support their assertion that the "government" has concluded that cigarette marketing only targets brand switchers. JD. PFF, ¶ 865-873. The only official position taken by the FTC on the question of advertising and cigarette consumption is contained in the 1964 Federal Trade Commission's Statement of Basis and Purpose of Trade Regulation Rule for the Prevention of Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking, which states: "No single factor probably accounts for the growth in cigarette consumption in recent years or for variations in the rate of growth. There seems no doubt, however, that advertising has been important today in determining total cigarette consumption and type and brand preference." Federal Trade Commission's Statement of Basis and Purpose of Trade Regulation Rule for the Prevention of Unfair or Deceptive Advertising and Labeling of Cigarettes in Relation to the Health Hazards of Smoking (1964) at 72-73; United States Objections and Answers to Joint Defendants' Second Set of Requests for Admission to the United States, United States v. Philip Morris, Request No. 2, November 30, 2001.

195. Beyond this 1964 statement, the FTC has not taken an official position on the relationship between cigarette advertising and demand. Therefore, certain statements of various employees do not represent the official position of the FTC itself, or of the United States, as Defendants allege. At his June 14, 2002 deposition, Gerard Butters, Assistant Director, Bureau of Economics, testified "I'm not aware of the [Federal Trade] Commission taking a position on the relationship between advertising cigarettes and aggregate demand specifically." Deposition of Gerard Butters, United States v. Philip Morris, June 14, 2002,

276:13-18.

196. Paul Rand Dixon, then-Chairman of the FTC, characterized his 1969 testimony cited by Defendants, in which he expressed his opinion on advertising's causal effect on consumption, as "speculation at the most." JD. PFF, ¶ 848.

197. Defendants selectively cite to a portion of Martin Fishbein's 1977 report for the FTC which discussed the conclusion that advertising did not affect consumption drawn by the authors of two studies. JD. PFF, ¶ 849. Defendants do not cite to Fishbein's own conclusion that advertising does influence consumption, which he clearly stated in his 1977 report:

> Although one cannot provide an unequivocal answer to the question, the available evidence suggests that, in opposition to the conventional wisdom of the industry, cigarette advertising does influence overall consumption. . . . [I]t has been argued that tobacco advertising is a factor "establishing smoking as a necessary social activity" (e.g., Learoyd, 1960), especially in young people (e.g., Herford, 1964). For example, Gorn & Goldberg (1977) have argued that "the association established via advertising between attractive lifestyles and cigarette smoking is one influence leading teenagers to smoke cigarettes" (p.1). . . . Although the present reviewer claims no expertise in the area of econometric models, there does appear to be a consensus that advertising does influence consumption.

Report of Martin Fishbein to the FTC at 37 (1977).

198. Defendants cite to a purported statement made by then-FTC Chairman Michael Pertschuk that advertising was not a "determinant" of smoking. JD. PFF, ¶ 851. Defendants' citation in fact is to an off-the-cuff remark attributed to Pertschuk at a 1983 Harvard University Policy Institute Seminar as subsequently remembered and reported nine years later in the Congressional Record by Senator Burns of Montana in opposition to a tax bill.

199. Defendants cite to a March 1985 report entitled "Recommendations of the Staff of the Federal Trade Commission, Omnibus Petition for Regulation of Unfair and Deceptive

Alcoholic Beverage Advertising and Marketing Practices." JD. PFF, ¶ 852. Despite Defendants' citation of this report as containing the positions of the FTC, the following disclaimer appeared on the title page: "These recommendations reflect the views of the Commission's Bureaus of Consumer Protection and Economics. They do not necessarily represent the views of the Federal Trade Commission or any of its individual Commissioners." Moreover, the report implied that individual campaigns caused consumption by offering the Commission the following option: "Individual Enforcement Actions Limited To Specific Advertising Campaigns That Deceptively or Unfairly Encourage Alcohol Abuse. This option would have staff undertake individual enforcement investigations against specific advertising campaigns. Recommending that this petition be denied, the staff does not intend to foreclose the options of pursuing individual cases where warranted." "Recommendations of the Staff of the Federal Trade Commission, Omnibus Petition for Regulation of Unfair and Deceptive Alcoholic Beverage Advertising and Marketing Practices" at 49 (March 1985). For instance, with regard to cigarette marketing, the FTC later exercised its option to pursue an individual case against R.J. Reynolds regarding its Joe Camel campaign.

200. Defendants cite to a letter written by and testimony given by former FTC Chairman Daniel Oliver. JD. PFF, ¶ 854-55. Both contained Oliver's personal views on the question of advertising's effect on consumption. The April 3, 1987 prepared statement had the following disclaimer in footnote one on the first page: "These are my views, not necessarily the views of the Commission or any other Commissioner." 2046329567-9584. His testimony before the House of Representatives contained the same disclaimer.

Testimony of Daniel Oliver, Cigarette Advertising Bans, House of Representatives, Energy and Commerce Comm; Before the Transportation, Tourism, and Hazardous Materials Subcomm. on H.R. 1272 and H.R. 1530 (Apr. 3, 1987) at 24.

201. Defendants cite a 1989 report prepared by FTC employee Joseph Mulholland entitled, "The Effect of Advertising on the Level and Composition of Cigarette Consumption." JD. PFF, ¶ 805, 847. At his deposition in this case, Mulholland stated that his 1989 report was a "literature review" rather than an independent analysis. Mulholland's report was not peer-reviewed and was not published by the FTC in 1989, and has not been peer-reviewed or published by the FTC or by any other body since that time. The report was never distributed outside the FTC, except to Defendants as a result of a FOIA request. Deposition of C. Lee Peeler in United States v. Philip Morris, August 1, 2002.

202. The result of Mulholland's "literature review" in 1989 was not, as Defendants allege, an affirmative finding that Defendants' cigarette marketing was only targeted towards adult brand switchers. When asked at his deposition whether his "general opinion as expressed in your writings is that there's no conclusive evidence that . . . there's not been an increase in the number of smokers as a result of cigarette advertising," Mulholland responded, "That's right. I mean, I don't see any significant evidence in support of that. And at the same time, I think, it's an extremely difficult issue to test. And, so, you know, so in that way it's very hard to make any conclusive, you know, opinions there." Deposition of Joseph Mulholland, United States v. Philip Morris, September 4, 2002 , 44-45; JD. PFF, ¶ 859.

203. The FTC took a position contrary to Defendants' interpretation of Mulholland's

report in its proceeding against the Joe Camel campaign. Deposition of Gerard Butters, United States v. Philip Morris, June 14, 2002, 268-69.

204. Defendants also cite a non-peer reviewed presentation given by J.L. Hamilton and published in a conference proceeding in 1977. JD. PFF, ¶ 861.

205. Defendants cite to the testimony of Howard Beales but fail to mention that Beales has served as a paid consultant for R.J. Reynolds. Beales's study, which Defendants assert is the "best statistical analysis of the impact of cigarette advertising . . . on youth smoking decisions" JD. PFF, ¶ 1814, was prepared under contract by R.J. Reynolds, was not peer-reviewed, and was published only as an opinion article in the magazine American Enterprise Institute, not as scientific research in a rigorous, academic journal.

206. None of the sources cited by Defendants support their assertion that the "government" has consistently concluded that Defendants' cigarette marketing is directed only to adult brand switchers.

C. Scientific Evidence Shows That Cigarette Company Defendants' Marketing Is A Substantial Contributing Factor In Youth Smoking Initiation And Continuation of Youth Smoking

207. Defendants argue that advertising "does not control consumers of any age," and does not cause youth smoking initiation. JD. PFF, ¶ 825-831. Defendants' arguments are based upon a misreading of the United States' allegations.

208. The United States' complaint does not allege that Defendants' marketing "controls" consumers. Rather, the United States' complaint alleges, and the United States' Preliminary Proposed Findings of Fact demonstrate, that despite Defendants' public statements that they did not market to youth, including individuals under the age of twenty-

one and individuals under the age of eighteen, Defendants targeted these young people with their marketing efforts. U.S. PFF, § IV.E.

209. Despite Defendants' continuing efforts to limit the scope of the United States' claims only to advertising, Defendants have used many more marketing practices than simply advertising to encourage youth smoking initiation and continued consumption, including: sponsoring events, such as sporting events, bar promotions, festivals, concerts and contests; coupons, price reductions, and free packs with purchase; gifts with purchase (known as "continuity items") such as t-shirts, mugs, and sporting goods; direct-mail marketing through which they sent magazines, "birthday cards," and other materials directly to individuals' homes; distribution of free cigarette samples at retail stores, public events, bars, or other locations; advertising on television, radio, films, and billboards, and in magazines and newspapers; and retail store advertising and promotions (known as "point of sale"). U.S. PFF, ¶ 1213. As demonstrated in the United States' Preliminary Findings of Fact, Defendants have used all of these marketing tools to reach young smokers and to encourage trial and increase consumption levels. U.S. PFF, ¶ 1354-1924.

210. The United States also does not allege – and need not prove to prevail – that cigarette advertising is the sole cause of youth smoking. The United States does allege that Defendants' marketing efforts, including advertising, promotions, product placements, sponsorship, and direct mail, are a substantial contributing factor of youth smoking initiation and continuing consumption of cigarettes by young people.

211. Despite Defendants' unsupported arguments to the contrary, JD. PFF, ¶ 825-831, the weight of scientific evidence shows that cigarette marketing is a substantial contributing

factor in youth smoking initiation and continued consumption of cigarettes by young people. U.S. PFF, ¶ 1358-1362.

212. Cigarette marketing affects youth smoking behaviors in a number of ways. Cigarette marketing influences young people's perceptions of the pervasiveness of smoking, and evidence shows that young people who have higher estimates of the prevalence of smoking are more likely to smoke themselves. Cigarette marketing also influences young people's image of smoking, by depicting smoking as cool, rebellious, irreverent, and other themes with youth-appeal. It also depicts smoking as a social facilitator by promising that smoking will assist young people in their social interactions. Expert Report of Anthony Biglan in United States v. Philip Morris; Expert Report of Michael Eriksen in United States v. Philip Morris; Testimony of Michael Eriksen at FTC proceeding on Nov. 17, 1998 at 1496-1497.

213. Numerous rigorous, scientific studies of the causal effect of marketing on youth smoking behavior have found that marketing is a substantial contributing factor in youth smoking initiation and continuation of youth smoking. Expert Report of Michael Eriksen in United States v. Philip Morris; Expert Report of Anthony Biglan in United States v. Philip Morris. These studies have been peer-reviewed and published. These studies include:

Papers Analyzing The Effect Of Marketing and Advertising On The Incidence Of Smoking, Aggregate Demand, Or Market Share:

- "Impact of cigarette advertising on aggregate demand for cigarettes in New Zealand," J. Chetwynd, P. Coope, R. J. Brodie, & E. Wells, 83 British Journal of Addiction 409 (1988)
- "Smoking initiation by adolescents: 1944 through 1988: An association with targeted advertising," J.P. Pierce, L. Lee, & E.A. Gilpin, 271(8) Journal of the American Medical Association, 608 (1994)

• "A historical analysis of tobacco marketing and the uptake of smoking by youth in the United States: 1890-1977," J. P. Pierce & E. A. Gilpin, 14 Health Psychology, 500 (1995)
• "The last straw? Cigarette advertising and realized market shares among youths and adults," R. W. Pollay, S. Siddarth, M. Siegel, A. Haddix, R. K. Merritt, G. Giovino, & M. P. Eriksen, Journal of Marketing (April 1, 1996) available at http://www2.elibrary.com.
• "Trends in adolescent smoking initiation in the United States: Is tobacco marketing an influence?" E. A. Gilpin & J. P. Pierce, 6 Tobacco Control 122 (1997)
• "The effect of tobacco advertising bans on tobacco consumption," Henry Saffer & F. Chaloupka, 19 Journal of Health Economics 1117 (2000)

Studies of the Influence of Marketing on Youth Smoking:

• "Brand Preference and Advertising Recall in Adolescent Smokers: Some Implications for Health Promotion," S. Chapman & B. Fitzgerald, 72 American Journal of Public Health 491 (1982)
• "Relationship between high school student smoking and recognition of cigarette advertisements," A.O. Goldstein, P.M. Fischer, J.W. Richards, & B.A. Creten, 110 Journal of Pediatrics 488 (1987)
• "Influence of education and advertising on the uptake of smoking by children," B. K. Armstrong, N. H. de Klerk, R. E. Shean, D. A. Dunn, & P. J. Dolin, 152 The Medical Journal of Australia 117 (1990)
• "Predisposing effects of cigarette advertising on children's intentions to smoke when older," P. P. Aitken, D. R. Eadie, G. B. Hastings, & A. J. Haywood, 86 British Journal of Addiction, 383 (1991)
• "Cigarette advertising and adolescent experimentation with smoking," M. Klitzner, P. J. Gruenewald, & E. Bamberger, 86 British Journal of Addiction 287 (1991)
• "Recognition and liking of tobacco and alcohol advertisements among adolescents," J. B. Unger, C. A. Johnson, & L. A. Rohrbach, 24 Preventive Medicine 461 (1995)
• "Influence of tobacco marketing and exposure to smokers on adolescent susceptibility to smoking," N. Evans, A. Farkas, E. Gilpin, C. C. Berry, & J. P. Pierce, 87 Journal of the National Cancer Institute 1538 (1995)
• "Cigarette advertising and onset of smoking in children: questionnaire survey," D. While, S. Kelly, W. Huang, & A. Charlton, 313 British Medical Journal 398 (1996)
• "Seventh graders' self-reported exposure to cigarette marketing and its relationship to their smoking behavior," C. Schooler, E. Feighery, & J.A. Flora, 86 American Journal of Public Health 1216 (1996)
• Validation of susceptibility as a predictor of which adolescents take up smoking

in the United States," J.P. Pierce, W.S. Choi, E.A. Gilpin, A.J. Farkas & R.K. Merritt, 15 Health Psychology 355 (1996)

- "Seeing, wanting, owning: The relationship between receptivity to tobacco marketing and smoking susceptibility in young people", E. Feighery, D. L. G. Borzekowski, C. Schooler, & J. Flora, 7 Tobacco Control 123 (1998)
- "Adolescent exposure to cigarette advertising in magazines: An evaluation of brand-specific advertising in relation to youth readership," C. King, III, M. Siegel, C. Celebucki, & G. N. Connolly, 279 Journal of the American Medical Association 516 (1998)
- "Adolescents' responses to cigarette advertisements: links between exposure, liking, and the appeal of smoking," J.J. Arnett & G. Terhanian, 7 Tobacco Control 129 (1998)
- "Exposure to brand-specific cigarette advertising in magazines and its impact on youth smoking," L. Pucci & M. Siegel, 29 Preventive Medicine 313 (1999)
- "Exposure of black youths to cigarette advertising in magazines," C. King, III, M. Siegel, & L.G. Pucci, 9 Tobacco Control 64 (2000)
- "Effectiveness of comprehensive tobacco control programmes in reducing teenage smoking in the USA," M. Wakefield & F.J. Chaloupka, 9 Tobacco Control 177 (2000)
- "Teenage exposure to cigarette advertising in popular consumer magazines," D.M. Krugman & K.W. King 19(2) Journal of Public Policy & Marketing 183 (2001)
- "Progression to established smoking: The influence of tobacco marketing," W. S. Choi, J.S. Ahluwalia, K.J. Harris, and K. Okuyemi 22(4) American Journal of Preventive Medicine 228-233 (2002)
- "Does tobacco marketing undermine the influence of recommended parenting in discouraging adolescents from smoking?" J.P. Pierce, J.M. Distefan, C. Jackson, M.M. White, and E.A. Gilpin 23(2) American Journal of Preventive Medicine 73-81 (2002)

Studies of the Effects of Promotional Activities of Tobacco Companies on Youth:

- "Tobacco promotions in the hands of youth," R,R, Coeytaux, D.G. Altman, J. Slade, 4 Tobacco Control 253 (1995)
- "RJ Reynolds' 'Camel cash': another way to reach kids," J.W. Richards, Jr., J.R. DiFranza, J.R., C. Fletcher, P.M. Fischer, 4 Tobacco Control 258 (1995)
- "Are adolescents receptive to current sales promotion practices of the tobacco industry?," E.A. Gilpin, J.P. Pierce, M.S. Rosbrook, 26 Preventive Medicine 14 (1997)
- "Cigarette promotional items in public schools," J.D. Sargent, M.A. Dalton, M. Beach, A. Bernhardt, D. Pullin, D. & M. Stevens, 151 Archives of Pediatric and Adolescent Medicine 1189 (1997)
- "Tobacco industry promotion of cigarettes and adolescent smoking," J.P. Pierce,

W.S. Choi, E.A. Gilpin, A.J. Farkas & C.C. Berry, C. C., 279 Journal of the American Medical Association 511 (1998)
• "Features of sales promotion in cigarette magazine advertisements, 1980-1993: An analysis of youth exposure in the United States," L.G. Pucci & M. Siegel, 8 Tobacco Control 29 (1999)
• "Exposure to cigarette promotions and smoking uptake in adolescents: evidence of a dose-response relation," J.D. Sargent, M. Dalton & M. Beach, 9 Tobacco Control 163 (2000)
• "Effect of cigarette promotions on smoking uptake among adolescents," J.D. Sargent, M. Dalton, M. Beach, A. Bernhardt, T. Heatherton & M. Stevens, 30 Preventive Medicine 320 (2000)
• "Tobacco Marketing and Adolescent Smoking: More support for a causal inference," American L. Biener & M. Siegel, 90 Journal of Public Health 407 (2000)

Papers That Provide Evidence of How the Psychological Needs of Adolescents Which Are Associated with Smoking Are Addressed in Cigarette Marketing:

• "Self-images and cigarette smoking in adolescence," L. Chassin, C.C. Presson, S.J. Sherman, E. Corty & R.W. Olshavsky, 7(4) Personality and Social Psychology Bulletin 670 (1981)
• "Predicting the onset of cigarette smoking in adolescents: A longitudinal study," L. Chassin, C.C. Presson, S.J. Sherman, E. Corty, & R.W. Olshavsky, 14 Journal of Applied Social Psychology 224 (1984)
• "Predictors of adolescent smoking and implications for prevention," C.L. Perry, D.M. Murray & K.I. Klepp, 36 4(S) Morbidity and Mortality Weekly Report 41 (1987)
• "Social psychological contributions to the understanding and prevention of adolescent cigarette smoking," L.Chassin, C.C. Presson & S.J. Sherman, 16 Personality and Social Psychology Bulletin 133 (1990)
• "Four pathways to young-adult smoking status: adolescent social-psychological antecedents in a Midwestern community sample," L. Chassin, C.C. Presson, S.J. Sherman & D.A. Edwards, 10 Health Psychology 409 (1991)
• "Sensation seeking and drug use among high risk Latino and Anglo adolescents," T.R. Simon, A.W. Stacy, S. Sussman, C.W. Dent, 17(5) Personality and Individual Differences 665 (1994)
• "Are psychosocial factors related to smoking in grade 6 students?," L.L.Pederson, J.J. Koval & K. O'Connor, 22(2) Addictive Behaviors 169 (1997)
• "Stress-coping and other psychosocial risk factors: A model for smoking in grade 6 students," J.J. Koval & L.L. Pederson, L.L., 24(2) Addictive Behaviors 207 (1999)
• "Where do motivational and emotional traits fit within three factor models of personality?," M. Zuckerman, J. Joireman, M. Kraft, D.M. Kuhlman, 26

Personality and Individual Differences 487 (1999)
• "Models of the relationships of stress, depression, and other psychosocial factors to smoking behavior: A comparison of a cohort of students in grades 6 and 8," J.J. Koval, L.L.Pederson, C.A. Mills, G.A. McGrady & S.C. Carvajal, S.C., 30 Preventive Medicine 463 (2000)
• "Predicting adolescent smoking: a prospective study of personality variables," R.D. Burt, K. T. Dinh, A.V. Peterson & I.G. Sarason, I. G., 30 Preventive Medicine 115 (2000)
• "Predicting regular cigarette use among continuation high school students," S. Skara, S. Sussman & C. W. Dent, 25 American Journal of Health Behavior 147 (2001)

Papers Analyzing the Effects of Joe Camel Campaign:

• "Does tobacco advertising target young people to start smoking?," J. P. Pierce, E. Gilpin, D. M. Burns, E. Whalen, B. Rosbrook, D. Shopland, & M. Johnson, 266 Journal of American Medical Association 3154 (1991)
• "Brand logo recognition by children aged 3 to 6 years: Mickey Mouse and Old Joe the Camel," P.M., Fischer, M.P. Schwartz, J.W. Richards, A.O. Goldstein, & T.H. Rojas, 266(22) Journal of the American Medical Association 3145 (1991)

A Randomized Controlled Trial That Shows That Exposure to Cigarette Advertisements Prompted More Favorable Thoughts About Smokers:

• "The effects of antismoking and cigarette advertising on young adolescents' perceptions of peers who smoke," C. Pechmann & S. Ratneshwar, 21 Journal of Consumer Research 236 (1994)

A Paper That Presents Evidence That Advertising Influences Peer Groups to View Smoking Positively:

• "Advertising, smoker imagery, and the diffusion of smoking behavior," D. Romer, & P. Jamieson, Smoking: Risk, perception, and policy 127 (P. Slovic, ed., 2001)

Papers Analyzing the Brand Preferences of Young People and A Paper That Estimates the Number of Adolescents Who Start Smoking:

• "Comparison of the cigarette brand preferences of adult and teenaged smokers -- United States, 1989, and 10 U.S. Communities, 1988 and 1990, 1992," 41 Morbidity and Mortality Weekly Report 169 (1992)
• "Changes in the cigarette brand preferences of adolescent smokers in United States, 1989-1993," 43 Morbidity and Mortality Weekly Report 577 (1994)

• "How many adolescents start smoking each day in the United States?," E. Gilpin, W.S. Choi, C.C. Berry & J.P. Pierce, J. P., 25 Journal of Adolescent Health 248 (1999)

Papers That Examine Smoking Among Girls and the Importance of Being Slim:

• "Smoking and weight control in teenagers," A. Charlton, 98 Public Health 277 (1984)
• "Tobacco Advertising in Gender-oriented popular magazines," L.R. Krupka, A.M. Vener & G. Richmond, 20 Journal of Drug Education 15 (1990)
• "Weight concerns, dieting behavior, and smoking initiation among adolescents: A prospective study," S.A. French, C.L. Perry, G.R. Leon & J.A. Fulkerson, 84 American Journal of Public Health 1818 (1994)
• "Smoking among adolescent girls: Prevalence and etiology," S.A. French & C.L. Perry, 51(1-2) Journal of the American Medical Women's Association 25 (1996)

Papers That Evidence The Exposure of Youth to Cigarette Advertising on TV and The Influence of Movie Depictions of Smoking:

• "Exposure of US youth to cigarette television advertising in the 1960s," R.W. Pollay, 3 Tobacco Control 130 (1994)
• "Do movie stars encourage adolescents to start smoking? Evidence from California," J.M.Distefan, E.A. Gilpin, J.D. Sargent & J.P. Pierce, 28 Preventive Medicine 1 (1999)

Papers That Provide Evidence of Cigarette Marketing to Youth After the Master Settlement Agreement:

• "Changes at the point-of-purchase for tobacco following the 1999 tobacco billboard advertising ban," M.Wakefield, Y.M. Terry, F. Chaloupka, D.C. Barker, S. Slater, P.I. Clark & G.A. Giovino, Research Paper Series, 4, Impact Teen (July 2000)
• "The master settlement agreement with the tobacco industry and cigarette advertising in magazines," C. King, III & M. Siegel, 345(7) The New England Journal of Medicine, 504 (2001)
• "Youth targeting by tobacco manufacturers since the Master Settlement Agreement," P.J. Chung, C.F. Garfield, P.J. Rathouz, D.S. Lauderdale, D. Best & J. Lantos, 21 Health Affairs 2 (2002)
• "Cigarette advertising expenditures before and after master settlement agreement: Preliminary findings," D. Turner-Bowker & W. Hamilton (In press), Tobacco Control at http://www.state.ma.us/dph/mtcp/report/mag.htm

214. The scientific articles cited above, written by independent scholars and published in peer-reviewed journals, demonstrate that Defendants' marketing efforts influence youth smoking initiation and consumption.

D. The Econometric Literature Does Not Show A Lack Of A Causal Connection Between Youth Smoking Initiation Or Continuation And Defendants' Cigarette Marketing Practices

215. Defendants discuss the econometric literature on the connection between advertising expenditure and consumption, suggesting that the fact that econometric studies have not unanimously found a causal connection between expenditure and consumption means that a causal connection does not exist between advertising and youth initiation. This implication is not one that can be reasonably drawn from the econometric literature.

216. It is difficult to use econometric models to understand the causal affect of marketing on youth smoking initiation or continuation because econometric studies use aggregate consumption and advertising expenditure data and examine small marginal changes. Since young smokers consume such a small percentage of the overall volume of cigarettes sold, it is difficult to find clear aggregate evidence of the effect of advertising expenditures on smoking initiation.

217. This point was discussed in the published work of Dr. Joel B. Cohen, who testified as an expert for the FTC in its Joe Camel proceeding:

> The tobacco industry has argued that advertising informs consumers about brand differences and leads to brand switching rather than to smoking initiation. Critics emphasize advertising's role in glamorizing smoking, attracting new smokers, and impeding the efforts of smokers to quit. Incontrovertible proof of either position would require data that simply do not exist and experiments that cannot be run. For example, unconfounded large-scale interruptions in cigarette advertising (sufficient to test for long-term changes in smoking behavior) have not occurred

> in the U.S. As a result, studies are forced to extrapolate from far less meaningful incremental changes in advertising expenditures and sales. In addition, (1) new smokers are a small proportion of total smokers, and (2) the effect of a modest change in advertising is unlikely to alter the amount smoked by those already accustomed to a particular number of cigarettes (e.g., a pack-a-day smoker is unlikely to become a pack-and-a-half-a-day smoker as a result of a small increase in advertising expenditures). Thus, in the aggregate, strong advertising effects on smoking initiation may well be swamped by the magnitude of the effects of smoking reinforcement and brand switching.

"Charting a Public Policy Agenda for Cigarettes," Joel B. Cohen, in P.E. Murphy, and W.L. Wilkie, Marketing and Advertising Regulation: The Federal Trade Commission in the 1990s, at 237 (1990).

218. In fact, Howard Beales, who served as a paid consultant to R.J. Reynolds and to whom Defendants cite, and Defendants' expert John Geweke have themselves pointed out the limited utility of econometric studies which require aggregate data in determining whether marketing is a cause of youth smoking initiation.

219. Dr. Howard Beales, currently the Director, Bureau of Consumer Protection, FTC, and cited by Defendants in their Preliminary Findings of Fact, wrote: "Numerous econometric studies have examined the relationship between cigarette advertising and consumption (e.g., Schmalensee 1972, Hamilton 1972; Schneider, Klein and Murphy 1981; Bishop and Yoo 1985). Although results are mixed, these studies have generally found little or no effect of advertising on total cigarette consumption. Because changes in adult smoking behavior are likely to dominate aggregate consumption statistics, however, such studies are insensitive measures of the effect of advertising on teenage smoking decisions." Beales was a consultant to R.J. Reynolds when this paper was written. J.H. Beales III, "The Determinants of Teenage Smoking Behavior," GWU School of Business and Public

Placement Working Paper 96-34 (1996) at 5 (emphasis added).

220. Defendants' expert John Geweke has stated that he believes that econometric models have limited utility: "All econometric models are wrong, but some are useful. They mirror only certain aspects of reality and these imperfectly." J. Geweke and W. McCausland, "Bayesian Specification Analysis in Econometrics," 83 Amer. J. Agr. Econ., 1181 at 1181 (2001).

221. Defendants wrongly state that, because some econometric studies have found that aggregate advertising expenditures affect aggregate consumption, and some econometric studies have not, that overall the econometric literature does "not support the view that cigarette advertising affects consumption." JD. PFF, ¶ 1805. Defendants criticize the United States' expert Dr. Michael Eriksen for testifying that the econometric literature has not reached a "consensus" on this question, and argue that this testimony undermines his opinion that the weight of the scientific evidence shows that marketing is a substantial contributing factor in youth smoking initiation. JD. PFF, ¶ 1789.

222. First, economics is only one discipline wherein the causal connection between marketing and youth smoking initiation has been studied; many experts in other disciplines have also studied this connection. As discussed above, Dr. Eriksen reviewed not only the econometric literature, but also literature from other disciplines, including the fields of public health, marketing, psychology, and adolescent development, and determined that overall the weight of the evidence supports his conclusion that Defendants' marketing is a substantial contributing factor in youth smoking initiation and continuation of youth smoking. Expert Report of Dr. Michael Eriksen in United States v. Philip Morris.

223. Second, Defendants are incorrect in stating that Dr. Eriksen's testimony that the econometric literature has not reached a "consensus" on the question of the effect of marketing on youth smoking initiation undermines his opinion regarding the weight of the scientific evidence on this point. A "consensus" would mean that all studies conducted had reached the identical conclusion. Dr. Eriksen's testimony that economists have not come to an unanimous "consensus" simply reflects the fact that, as discussed above, some econometric studies have found that aggregate advertising expenditures affect aggregate consumption, and some econometric studies have not. This recognition does not detract from Dr. Eriksen's opinion that the weight of the evidence shows that marketing is a substantial contributing factor to youth smoking initiation.

E. Defendants' Criticisms Of The United States' Experts Are Not Supported By Facts Or Evidence

224. The United States' experts base their opinions that Defendants' marketing is a substantial contributing factor to youth smoking initiation on well-respected, peer-reviewed, published research. In their Preliminary Findings of Fact, Defendants do not present independently conducted, peer-reviewed research that concludes that their marketing practices have no causal effect on youth smoking behaviors. Unable to counter the United States' experts' opinions with any solid evidence, Defendants resort to mischaracterizing the testimony and opinions of the United States' experts. JD. PFF, ¶ 1784-1789, 840-844.

1. Defendants' Criticisms Of Dr. Eriksen Are Unfounded

225. Dr. Eriksen relied upon the weight of the evidence in coming to the conclusion that youth smoking is a substantial contributing factor to youth smoking initiation and

continuing consumption.

226. Defendants wrongly assert that Dr. Eriksen was unable to provide a "single study" at his August 22, 2002 deposition in this case to show that cigarette marketing is a substantial contributing factor to youth smoking initiation and continuing consumption. JD. PFF, ¶ 1784-1789.

227. In fact, at Dr. Eriksen's deposition, Defendants repeatedly asked him to identify a "single study" that provided "definitive evidence" that advertising causes youth to start smoking. Dr. Eriksen declined to limit the many sources on which he based his opinion to a single study, stating numerous times that he relied upon the "weight of the evidence" derived from numerous studies to inform his opinion.

228. Dr. Eriksen also testified that it would be extremely difficult, if not impossible, to conduct the "single study" demanded by Defendants for a number of reasons, including: (1) the inability to conduct truly experimental research because of the ubiquity of advertising; and (2) the unavailability to the public health community of advertising expenditure data that is considered proprietary by the tobacco industry.

229. Along similar lines, Defendants criticize Dr. Eriksen, Dr. Dolan, Dr. Biglan, and Dr. Krugman for not attempting to quantify the percentage of youth smoking that would be attributed to Defendants' bad acts by conducting or relying upon an experimental study where a control group received no cigarette marketing and the experimental group received marketing. JD. PFF, ¶ 840-844.

230. In fact, as discussed below, Defendants' own experts testified at their depositions in this case that performing such an experimental study to quantify the percentage of youth

smoking caused by Defendants' marketing efforts would be unethical and infeasible.

231. At his July 17, 2002 deposition, Defendants' expert Donald B. Rubin, Ph.D., Professor and Chair of Statistics at Harvard University, testified that it would be impossible to perform an experiment to estimate the causal effect of Defendants' marketing on youth smoking:

> Q. Suppose you were designing an experiment to estimate the causal effect of the defendants' alleged targeted marketing of young people and smoking behavior, okay?
> A. Yup. . . .
> Q. Would it be possible to actually perform the study you've outlined in the real world?
> A. The ideal study that we're talking about, no . . .

Deposition of Donald B. Rubin, United States v. Philip Morris, July 17, 2002, 137:12-165:11.

232. At his September 13, 2002 deposition, Defendants' expert James J. Heckman, Ph.D., Professor of Economics at the University of Chicago and Nobel Laureate in Economics, described an experiment to estimate the causal effect of Defendants' marketing on youth smoking behavior as "unethical" and "preposterous."

> Q. . . . Suppose that we were going to design an experiment to estimate the causal effect of defendants alleged RICO violations on smoking behavior. . . . You have the [real] world, but you might want to have a representative - a matched sample . . . to your treatment group [who receive a dose of cigarette marketing] and your sequestered group [who receive no cigarette marketing]?
> A. Comparison group or controlled group. . . . That's true. These people, but without some treatment, could be advertising [or] less advertising.
> Q. You were introducing the concept of . . . need[ing] to find out . . . how much the smoking in these two experimental groups differ from the real world as well?
> A. Correct.
> Q. If you are going to do that, then you need to have a third sample, who are simply real-world people and will measure them in the real world?
> A. Right a benchmark. That's right a benchmark. I just took that as a given. . . .

> So we had these two different groups getting the - they're unethical questions. If I were - if I were to ask the NIH to support a study [in] which I actively promoted smoking among youth, I suspect I would have no luck. . . . but now you run into a very difficult question. Imagine designing an experiment where you would actually go out and reduce advertising, but only . . . to young people, . . . but not their parents. See, then you would have age specific . . . data. You could imagine doing it. . . . but it seems a little preposterous, a little difficult.

Deposition of James J. Heckman, United States v. Philip Morris, September 13, 2002, 512:20-535:4 (emphasis added).

233. At his September 13, 2002 deposition, Defendants' expert Heckman further testified that many types of "supplementary information," not just a "randomized experiment," could show the causal effect of Defendants' marketing on youth smoking behavior. Heckman further testified that randomized experiments are "by no means perfect."

> A. I would choose a randomized experiment to do something if I thought I could [achieve] the randomization [of the subjects of the experiment] and if I thought I couldn't get any other information from any other way, but I don't see any reason that has to be randomized. . . . that's why I'm much more tolerant of evidence from many sources than I am from the notion that randomization is itself – in and of itself the end-all and be-all of causal inference. . . . I would say every piece of information adds to a larger story, but I would use other kinds of supplementary information to go with it. So that's why I think randomization is not the end-all and be-all. . . . Experiments are by no means perfect. And people who say they are are simply ignoring huge amounts of evidence that they aren't. . . . I see the way you are going . . . I'm creating a high standard by insisting on an experiment. And I think I might even agree with you, but I don't think you need an experiment to establish very convincingly what could be done.

Deposition of James J. Heckman, United States v. Philip Morris, September 13, 2002, 513:16-541:14 (emphasis added).

234. At his July 25, 2002 deposition, Defendants' expert John F. Geweke, Ph.D., Professor of Economics at the University of Iowa, testified that, although he could design an experiment to show the causal effect of Defendants' marketing on youth smoking behavior,

such an experiment would be barred by ethical concerns and would not make it "past a human subjects committee."

> Q: Would you be capable of designing an experiment to estimate the causal effect of that wrongful conduct [targeting young people with advertising and promotional activities] on [initiation or continuation] of smoking behavior?
> A: I think that given an awful lot of money, I could design an experiment that would shed some light on this. . .
> Q: Would that [experiment] be ethical?
> A: I prefaced all these remarks by saying that there are all kinds of questions having to do with budget and ethics. . . . I certainly grant the point about budget and ethics and politics, any one of which would probably preclude the study. . .
> Q: Would you agree that [the experiment] would create some ethical problems for conducting such a study? . . .
> A: It wouldn't get past a human subjects committee . . .

Deposition of John F. Geweke, United States v. Philip Morris, July 25, 2002, 185:10-22, 191:19-192:6, 193:3-11 (emphasis added).

235. Defendants mischaracterize a study co-authored by Dr. Eriksen, published as "The Last Straw" in the Journal of Marketing in 1996, as looking at cigarette brand market share, not "the smoking decisions of youth." JD. PFF, 1824 To the contrary, the study looked at both overall brand market share and youth brand preference. The study found that young people were much more sensitive to advertising expenditures than adults, that youth smoke the most advertised brands, and that brand selection was not the result of youth adopting the brands that their parents or adults smoke. R. W. Pollay, S. Siddarth, M. Siegel, A. Haddix, R. K. Merritt, G. Giovino, & M. P. Eriksen, "The last straw? Cigarette advertising and realized market shares among youths and adults," Journal of Marketing (April 1, 1996). As Dr. Eriksen testified at his deposition in this case, this peer-reviewed study was the lead article in the reputable academic publication, the Journal of Marketing, and subsequently won

an award for the most significant article published in the Journal of Marketing that year.

236. Defendants also misstate Dr. Eriksen's testimony regarding his use of the term "substantial" in his opinion that cigarette marketing is a substantial contributing factor to youth smoking initiation and continuing consumption by suggesting that Dr. Eriksen uses the word "substantial" as an equivalent for the term "no effect." JD. PFF, ¶ 1788. This conclusion is not supported by Dr. Eriksen's testimony, wherein he stated that he used the term "substantial" to indicate the relative importance of marketing. When asked whether he could substitute the term "statistical significance" for "substantial," Dr. Eriksen testified that such a substitution would be inappropriate, as he had used the term "substantial" purposefully not to imply a precise level of "statistical significance" since the "statistical significance" of the weight of evidence cannot be measured.

2. Defendants' Criticisms Of Dr. Krugman Are Unfounded

237. Defendants cite at length from a marketing textbook co-authored by the United States' expert Dr. Krugman as evidence for the proposition that "cigarette marketing does not 'cause' consumption." JD. PFF, ¶ 831-833.

238. In fact, Dr. Krugman did not specifically address the question of cigarette marketing and youth smoking in his textbook. The theories set forth in Dr. Krugman's textbook, as is clearly apparent even from the selective portions cited by Defendants, do not support Defendants' assertion. Rather, the textbook discussed the complex factors that bear upon purchase choice, including advertising as well as "individual, social, and cultural factors: Do I need the product? How does the product fit or enhance my image or personality – is it me?" JD. PFF, ¶ 831.

239. As demonstrated at length in the United States' findings, Defendants are well aware that consumers weigh such individual, social, and cultural factors when deciding to smoke, and therefore Defendants shape their marketing so as to persuade a potential consumer that smoking will "fit or enhance my image or personality." For each cigarette brand, Defendants develop a "brand image" meant to persuade consumers that the brand will enhance their own image or personality. Defendants' marketing targets young people with themes that they find particularly relevant and appealing, promising them that smoking will make them "cool" like Joe Camel or "independent" like the Marlboro Man or attractive to the opposite sex like the models shown in BKool advertisements or "popular" with their peers like the young smokers shown in Newport advertisements. U.S. PFF, ¶ 1354-1924.

240. The theory cited by Defendants from Dr. Krugman's textbook – that purchase choice is subject to numerous complex factors – in no way contradicts Dr. Krugman's opinion that marketing and advertising stimulate youth smoking, as he stated in his report and testified at his deposition. Expert Report of Dean Krugman in United States v. Philip Morris; Depositions of Dean Krugman, United States v. Philip Morris.

3. Defendants' Criticisms Of Dr. Chaloupka And Dr. Saffer Are Unfounded

241. Defendants cite to United States' expert Dr. Henry Saffer's testimony regarding supposed problems in his study of advertising bans, co-authored with Dr. Frank Chaloupka. JD. PFF, ¶ 833-839, ¶ 1819-1822.

242. Dr. Saffer admitted at his deposition that he made minor errors in classification, including Sweden, Belgium, Italy and Canada (but not Greece). Upon further study, Dr.

Saffer discovered that only the re-classification of Canada affected his calculation by changing the confidence interval (CI) on his study. None of the errors in classification changed the point estimates (which are the calculations of the reduction in tobacco consumption), and none invalidated the hypothesis of his research, which is that stronger advertising bans reduce tobacco consumption.

F. Defendants' Arguments That Marketing Does Not Cause Youth Smoking Behavior Based Upon Consumer Surveys And Other Risky Behavior Are Unfounded

1. The Evidence Shows That Individuals Do Not Understand Their Own Susceptibility To Advertising And Marketing

243. Defendants argue that, because consumers do not report that advertising is the primary factor that caused them to begin smoking, advertising does not affect youth smoking initiation. JD. PFF, ¶ 825-830.

244. It is a well accepted principle in the field of marketing that individuals do not fully understand the influence of marketing or advertising upon themselves. As discussed below, it is not an effective measure of the effect of marketing on an individual to simply ask an individual whether or not they are affected by marketing. Defendants' statement that many individuals do not believe that they are influenced by advertising is consistent with this principle, and in no way demonstrates that advertising and marketing do not influence young people's smoking.

245. As Joel B. Cohen, Professor of Marketing, University of Florida, testified to the House of Representatives Committee on Energy and Commerce in 1989:

> I have not encountered a single advertising, marketing or marketing research book that has ever recommended asking consumers to judge how

> important/effective/influential advertising was in leading to their use of a product. It is simply bad science to do so for four principal reasons:
> (1) People tend to be unaware of the cumulative effects of normal every day occurrences such as advertising when no single instance makes much of an impression. This has been well-established by advertising research to assess recall of ads, and particularly for "image" advertising that does not operate through high involvement persuasive processes . . .
> (2) Even if people had the ability to recall their exposure to the totality of cigarette advertising, they have very little insight into internal processes such as forming of mental associations and judging the relative impact of these different influences over time . . .
> (3) Even if they were aware of advertising's influence on their information processing activities, people assign primary responsibility for their judgment and attitudes to their own conscious deliberations (hence often overstating their own rationality and control; see Ross and Conway, 1986).
> (4) Even if people understood that advertising had a strong impact on their product beliefs, attitudes and predispositions to purchase, they would not want to admit it to others for fear of appearing foolish and weak (Breckler and Greenwald, 1986).
> Giving people a list of alternative "reasons" for their behavior (Advertising, friends, curiosity, etc.) only makes the problem worse. The individual can review the list for responses that would present himself/herself in the most favorable light. Further, since the individual is unable to correctly assess the impact of the various influences, people will typically work back from the behavior (i.e, first time use of a cigarette) and select answers that sound most plausible (i.e., curiosity).

Joel B. Cohen, Professor of Marketing, University of Florida, Testimony to the 101st Cong, House, Committee on Energy and Commerce, Vol.38, Page 192 (1989).

246. This point is supported by a survey performed by Defendants' expert Richard Seminick and cited by Defendants. Semenick's survey of individuals on this matter found that not a single person of the 800 persons questioned reported that advertising influenced their decision to begin smoking. JD. PFF, ¶ 830.

247. Defendants' internal documents also reflect their knowledge that individuals do not understand the influence of marketing or advertising upon themselves.

248. A May 20, 1975 Brown & Williamson document prepared by Marketing and Research Counselors, Inc., for Ted Bates Advertising entitled "What we have learned from people? A conceptual summarization of 18 focus group interviews on the subject of smoking," stated: "With only a few exceptions, this campaign did not generate positive reactions, both in absolute and relative terms. The reader, before continuing, must realize that people feel as if they must be critical of advertising, they must reject it, they must degrade it. Thus, all respondents, almost by definition, were critical of most cigarette advertising." 170043558-3624 at 3568 (emphasis added).

249. A January 1977 document prepared by PKG Research for Brown & Williamson entitled "A Brief Look at the Dynamics of the Cigarette Industry" stated that "'imagery is an important aspect of brand preference. Unfortunately, getting a respondent to verbalize the full impact of a brand's image is difficult because a smoker may not want to admit selecting a brand on the basis of its imagery and/or his or her response to an image may be partially subconscious.'" 776158413-8426 at 8421 (emphasis added).

2. The Fact That Adolescents Engage In Other Risky Behaviors Has No Relevance

250. Citing to 1997 findings of the Center for Disease Control, Defendants assert that adolescents engage "in a variety of risk behaviors that are not subject to any advertising," citing to the consumption of alcohol and driving under the influence of alcohol as examples. JD. PFF, ¶ 808. It is incorrect to describe drinking alcohol, which like cigarettes is one of the most heavily marketed, advertised, and promoted consumer products on the market today, as a risk behavior "not subject to any advertising."

251. As the United States' expert Paul Slovic stated in his report and testified at his deposition, young people underestimate the risks of smoking, in part due to the many images of healthy people shown in Defendants' advertising, and to the lack of meaningful information regarding the risks of addiction. Expert Report of Paul Slovic, United States v. Philip Morris.

G. That Peer And Parental Influences Are Predictors For Adolescent Smoking Does Not Refute The Fact That Defendants' Marketing Is A Causal Factor In Youth Smoking

252. Defendants assert that it is peer pressure, not marketing, that influences young people to start smoking. JD. PFF, ¶ 784-806. In support of this assertion, Defendants purport to cite various United States' employees and the United States' expert Dr. Anthony Biglan. JD. PFF, ¶ 807. Defendants argue that these various sources prove that "peer and familial influence are the predominant reasons why youths smoke." JD. PFF, ¶ 809-824.

253. Defendants' assertion that research has determined that peer and parental influence are the predominant influences on youth smoking is a strawman. The fact that peer influences and parental smoking behavior are predictive factors for adolescent smoking in no way refutes the fact that Defendants' marketing is a causal factor in youth smoking initiation and youth smoking behaviors.

254. As the United States' experts have testified, multiple factors influence smoking initiation and consumption, including marketing and advertising. Peer influences and parental smoking behavior are also predictive factors. Expert Report of Michael Eriksen in United States v. Philip Morris; Expert Report of Anthony Biglan in United States v. Philip Morris. The United States' experts have testified that Defendants' marketing does not operate

in isolation, but interacts with other factors to stimulate demand for cigarettes among young people. Testimony of Michael Eriksen at FTC proceeding on Nov. 17, 1998 at 1496-1497.

255. Defendants mischaracterize the scientific research conducted on the influence of family and peers, asserting that research shows that "peer and familial influence are the predominant reasons why youths smoke." It is true that reports such as those cited by Defendants frequently state that peer and familial influences are "predictors" of smoking, meaning that they are factors that correlate with smoking. Finding that a factor correlates with smoking and is therefore a predictor does not necessarily mean that such a factor is the sole causal factor. Most of the reports cited by Defendants do not even attempt to measure the effects of marketing on youth smoking initiation. These reports do not support Defendants' claim that peer and familial influences are the "predominant reason why youths smoke."

256. Moreover, it is completely consistent for social influence to be a strong predictor of adolescent smoking and for marketing to be a still stronger causal factor because marketing also affects social influences.

257. No authoritative source states that parental and peer smoking is the sole determinative of adolescent smoking, despite Defendants' arguments to the contrary.

258. The 1994 Surgeon General's Report found that there was mixed evidence of parental influence on adolescent smoking. The Report included a table entitled "Predictors of smoking onset in 27 prospective studies," which summarized research by Conrad, Flay and Hill, entitled "Why Children Start Smoking Cigarettes: Predictors of Onset," Brit. J. Addiction 87:1711-1724 (1992). This table showed the mixed evidence on parental

influence, including: (1) six studies that found that "family approval" predicted youth smoking and eight studies which found that it did not predict youth smoking; (2) nine studies that found that family bonding predicted youth smoking and six that found that it did not; and (3) eighteen studies that found that parental smoking was associated with youth smoking, and eight that found that it was not. Youth and Tobacco: Preventing Tobacco Use Among Young People: A Report of the Surgeon General at 130 (1994).

259. Although this table is cited by Defendants, they fail to discuss its findings of mixed evidence on parental influence. JD. PFF, ¶ 801. Instead, they cite the table as proof that advertising does not have "an influence" on youth smoking behavior, because two studies found that "[e]xposure to tobacco advertising and watching tobacco sponsored sports were . . . non-predictive." JD. PFF, ¶ 801. Because, as discussed above, Defendants fail to distinguish between "predictors" and causal factors, Defendants misconstrue the results of these two studies. When conducting research, the only factors that can be usefully studied as potential "predictors" of youth smoking are ones that are "variables," meaning that they take on a range of values in the population studied. Marketing is not a variable in a culture saturated with marketing. Because everyone has substantial exposure to tobacco marketing, it is very difficult to test the hypothesis that people with little or no exposure are less likely to become smokers.

260. Peer and parental smoking appear more frequently in "predictor" studies because it is easy to measure and operationalize peer and parental smoking, and more difficult to measure and operationalize marketing influences. Even when researchers attempt to include the influence of marketing, it is often hard to operationalize because: 1) adolescents, like

most individuals, do not like to admit they are influenced by marketing; 2) the influence of marketing is often indirect and the adolescent may not be cognizant of the actual influence; and 3) actual exposure to marketing is difficult to operationalize.

261. For all of these reasons, it is difficult to conduct a meaningful test of whether marketing is a predictor for smoking initiation, and a failure to find that marketing predicts smoking does not mean that marketing does not have a causal role in smoking initiation.

262. Moreover, recent published research shows that Defendants' marketing can undermine a parent's ability to discourage their child from smoking. A recent study, which was peer-reviewed and published in a reputable scientific journal, showed that "parenting style" is a more powerful predictor of teen tobacco use than whether the parent actually smokes or not. This study concluded that advertising influences undermine the ability of parents to discourage adolescents from smoking. J.P. Pierce et al., "Does Tobacco Marketing Undermine the Influence of Recommended Parenting in Discouraging Adolescents from Smoking?" 23:2 American Journal of Preventive Medicine 73-81 (2002).

263. Defendants also ignore research that has controlled for parental smoking and found that adolescent brand preference correlated with the most heavily advertised brands of cigarettes. R. W. Pollay, S. Siddarth, M. Siegel, A. Haddix, R. K. Merritt, G. Giovino, & M. P. Eriksen, "The last straw? Cigarette advertising and realized market shares among youths and adults," Journal of Marketing (April 1, 1996).

264. Defendants provide numerous pages of quotations regarding peer and familial influence on youth smoking that were written by the United States' expert Dr. Anthony Biglan. Defendants argue that, because some of Dr. Biglan's work discussed the influence of

peers and family members upon youth smoking behavior, his "research is contrary to the Government's claims in this case that marketing is an influence on smoking initiation among youth." JD. PFF, ¶ 807.

265. As discussed above, and as Dr. Biglan made clear in his expert report as well as in his testimony in this case, multiple factors influence smoking initiation and consumption, including marketing. Peer influences and parental smoking behavior are also predictive factors. Dr. Biglan has testified in this case that it has long been his opinion that cigarette marketing contributes to youth tobacco use. Dr. Biglan has also previously published materials that include this opinion. None of Dr. Biglan's research regarding peer or parental influence, cited by Defendants, contradicts his long-held opinion that cigarette marketing contributes to youth tobacco use.

266. Dr. Biglan's previously published materials which discuss his opinion that cigarette marketing contributes to youth tobacco use include: A. Biglan, "Changing cultural practices: A contextualist framework for intervention research," at 216-222 (1995); A. Biglan, D.V. Ary, H. Yudelson, et. al, "Experimental evaluation of a modular approach to mobilizing anti-tobacco influences of peers and parents," 24(3) American Journal of Community Psychology 311-339 at 321 (1996); A. Biglan, H.H. Severson, R. Glasgow et. al, "Preventing the use of smokeless tobacco and cigarettes by teens: Results of a classroom intervention," 6(1) Health Education Research, 109-120 at 112 (1991); D.V. Ary, A. Biglan, R. Glasgow et al., "The efficacy of social-influence prevention programs versus 'standard care': Are new initiatives needed?," 13(3) Journal of Behavioral Medicine 281-96 at 286 (1990).

267. Furthermore, Defendnts fail to address the question of why peers and parents smoke themselves – the question of what factors encourage people to make their initial decision to smoke which then influence the subsequent behavior of others.

268. One answer to this question is that peers and parents smoke due to Defendants' marketing efforts. Under "diffusion theory," individuals are broken up into "innovators," "early adopters," "late adopters" and "laggards." "Innovators" are risk takers, and seek out new products and services, and serve as "opinion leaders" with others emulating their actions. Because cigarette marketing is directed at innovators, it stimulates their adoption of smoking, and they in turn are emulated by the other groups. J.P Pierce et al., "Does Tobacco Marketing Undermine the Influence of Recommended Parenting in Discouraging Adolescents from Smoking?," 23:2 American Journal of Preventive Medicine 73-81 (2002).

269. Defendants' internal documents show that they are aware of the influence that peers have on youth smoking initiation, and that they attempted to harness this influence in their marketing efforts by emphasizing themes of peer-appeal and popularity. U.S. PFF, ¶ 1785-1808. For example, the documents below demonstrate Philip Morris' use of peer-appeal advertising in its Marlboro campaign, and Lorillard's use of peer-appeal in its Newport campaign.

270.

[REDACTED]

[REDACTED]

271. A November 1998 document written by Philip Morris' advertising agency Leo Burnett for Philip Morris, entitled "Marlboro Advertising: A Strategic Perspective, Core

Values Communication" showed that Philip Morris followed through on the recommendations of the document entitled "Marlboro Worldwide Creative Brief" discussed above, by adding "camaraderie" – peer-appeal – to its list of Marlboro core values. The document indicated that, "Globally, our key advertising challenge is to keep the execution of the Core Values of Marlboro Country relevant and impactful in the context of LA-24 adult smokers and marketplace dynamics." It discussed Marlboro's current advertising: "A mix of images worked hard to effectively communicate freedom, self confidence, respect, dignity, independence (by choice), camaraderie, harmony with nature, tranquility, majesty and power . . . [r]esulting in keeping the Marlboro Man fresh and expanding his most aspirational qualities." LB 0092512-2522 at 2521-2522 (emphasis added).

272. The following documents regarding Newport's "Alive With Pleasure" campaign showed how Lorillard designed its marketing efforts to "Newport's competitive advantage as the peer brand of choice."

273. The "Newport 1992 Strategic Marketing Plan" dated August 15, 1991 discussed Newport's "1992 Key Issues" which included "Fewer entry level smokers" and mentioned the importance of the "Alive With Pleasure" advertising campaign, coupled with price promotions, to "generate interest and trial among entry level smokers." Although the document stated that Newport's "primary target" were 18-24 year olds, Lorillard was well aware that the majority of smokers "entered" the cigarette market before the age of 18. 92011118-1156.

274. "Newport #1 Menthol Fact Sheet," entitled "by Victor Lindsley," written apparently in or after 1993, discusses Newport's "20 straight years of volume growth"

beginning in 1972, which he credited to the brand's marketing: "To communicate the Brand's 'Pleasure' image among targeted smokers, the 'Alive with Pleasure' campaign was created. The campaign, which has remained unchanged over the past 20 years, is a refection of the franchise in social situations, capturing highly original, relevant, pleasurable experiences with a unique visual twist." This campaign, coupled with "a powerful promotion plan" moved Newport all the way up to the "#1 Menthol Brand" and the #3 Brand in the nation. 89959484-9486 (emphasis added).

275.

[REDACTED]

276.

[REDACTED]

H. Defendants' Marketing Is Not "Severely" Restricted By Their Self-Imposed Cigarette Advertising Code, By The MSA, Or By Any Other Form Of Regulation

277. Defendants assert that their self-imposed Cigarette Advertising Code and the MSA "severely" restrict and limit their marketing. JD. PFF, ¶ 783, 874-886.

278. First, Defendants simply provide quotations from the Code and the MSA. Defendants provide absolutely no factual evidence of either (1) their alleged compliance with the Code or the MSA; or (2) the effectiveness of their alleged compliance with the Code and the MSA in stopping them from continuing to market to youth.

279. Second, as set forth in the United States' Preliminary Findings of Fact, Defendants obey neither the Code nor the MSA. Despite both agreements, Defendants continue to market to youth. Indeed, as demonstrated in the United States' Preliminary Findings of Fact at ¶ 1313-1353, Defendants' promulgation and publicity surrounding the Code were in furtherance of the scheme to defraud, particularly in supporting Defendants' false statements that they did not target youth. The MSA is discussed at more length in the United States' Reply to Joint Defendants' Preliminary Proposed Conclusions of Law.

I. The United States' Claims Are Not Precluded By Congressional Or FTC

Regulation, Barred By The First Amendment, Barred By The Doctrines Of Waiver Or Equitable Estoppel Or Affected By The Synar Amendment

280. Defendants make various legal arguments, including (1) asserting that the government has failed to enforce the Synar Amendment. JD. PFF, ¶¶ 185-190, 888-898; (2) arguing that the United States' claims are precluded by the FTC regulatory scheme. JD. PFF, ¶¶ 771, 773, 775-776, 782-783, 865-873; (3) arguing that the United States' claims are barred by waiver and equitable estoppel, JD. PFF, ¶ 777; and (4) asserting that the United States seeks relief in violation of First Amendment, JD. PFF, ¶ 777.

281. Under the Synar Amendment, the Substance Abuse and Mental Health Services Administration ("SAMHSA"), a sub-component of the Department of Health and Human Services, administers block grants to states that demonstrate a reduction in youth smoking. Defendants fail to articulate any theory of how the Synar Amendment provides an affirmative defense. Obviously, it does not. The fact that the United States has allocated resources to prevent youth smoking is irrelevant to the question of Defendants' targeted marketing to youth and their false statements regarding that marketing. To the extent that Defendants were attempting to imply that the Synar Amendment supports a theory of laches or another legal theory, those theories are addressed in the United States' Reply to Joint Defendants' Preliminary Proposed Conclusions of Law.

282. Defendants' arguments about the FTC, waiver, equitable estoppel and the First Amendment are legal arguments which are addressed in sections I, VII, VIII, IX and X of the United States' Reply to Joint Defendants' Preliminary Proposed Conclusions of Law.

J. Defendants' Youth Smoking Prevention Programs Do Not Prevent Their Ongoing Marketing Efforts Directed At Youth

283. Defendants tout their youth smoking prevention programs supposedly "designed to discourage youth initiation of cigarette smoking." JD. PFF, ¶ 887.

284. Defendants' programs do not provide any refutation of the evidence that Defendants marketed and continue to market to youth and that Defendants denied and continue to deny that they market to youth.

285. Moreover, the United States' expert, Dr. Anthony Biglan, demonstrated at length in his report filed May 10, 2002, that Defendants' programs are ineffective.

V. UNITED STATES' RESPONSE TO CHAPTER FIVE

286. In order to make the false claim that they have not committed fraud in connection with their public statements regarding disease causation, Defendants' proposed findings advance a distorted version of the historical research leading to the formation of scientific consensus about the health consequences of smoking. The inaccurate historical account is made to advance Defendants' overarching claim that they have not committed fraud in connection with their public statements regarding disease causation. This overarching claim is simply not credible; it is contradicted by the overwhelming evidence cited in the United States' Preliminary Proposed Findings of Fact. U.S. PFF, § IV.A.

A. Research Undertaken In The Late 1940s And Early 1950s Established Smoking As A Cause Of Lung Cancer

287. The scientific research that established smoking as a cause of lung cancer by, at the latest, 1953, was undertaken as a result of an alarming increase in the number of cases of lung cancer. Virtually unknown as a cause of death in 1900, by 1935 there were an estimated 4,000 deaths. A decade later, such estimates had nearly tripled. Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 135 (1964); E. Cuyler Hammond, The Effects of Smoking, Scientific American, July, 1962, at 40-41; Expert Report of Allan M. Brandt, Ph.D. in United States v. Philip Morris.

288. The rise in lung cancers had followed the dramatic increase in cigarette consumption beginning early in the twentieth century. Per capita consumption of cigarettes

in 1900 stood at approximately 49; by 1930, per capita consumption was over 1,300; by 1950 it would be over 3,000. Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, p. 45 (1964).

289. Defendants' assertion that scientists questioned whether lung cancer incidence was rising during the first half of the 20th century, JD. PFF, p. 458-59, ¶¶ 935-38, not only misrepresents the state of knowledge within the scientific community – with such state of knowledge based on facts – but also misrepresents the level of concern about the alarming rise in the incidence of lung cancer.

290. Defendants' assertion that "before 1964, under prevailing scientific standards (that were acknowledged and applied by government scientists of every stripe), there was not sufficient proof to conclude that cigarette smoking caused disease in human beings," JD. PFF p. 452, ¶ 923, is false.

291. Beginning in the 1940s, twenty years before the publication of the first Surgeon General's Report on smoking and health, researchers began to devise studies that would directly address and resolve the persistent and increasingly important questions concerning the harms of cigarette smoking. Expert report of Allan M. Brandt, Ph.D. in United States v. Philip Morris.

292. By late 1953, eleven years prior to the publication of the first Surgeon General's Report on smoking and health, there had been at least five published epidemiologic investigations, as well as others pursuing carcinogenic components in tobacco smoke and its

impacts. See, e.g., Doll, Richard, and A. Bradford Hill, Smoking and Carcinoma of the Lung: Preliminary Report, British Medical Journal (1950); Wynder, Ernst L., and Evarts A. Graham, Tobacco smoking as a possible etiologic factor in bronchiogenic carcinoma: a study of 684 proved cases, JAMA 143.4:336 (1950); Levin, Morton L., Hyman Goldstein, and Paul R. Gerhardt, Cancer and Tobacco Smoking; A Preliminary Report, JAMA 143.4: 336, 337 (1950); Doll, Richard, and A. Bradford Hill, A study of the aetiology of carcinoma of the lung, British Medical Journal 2 (1952); Wynder, Ernst L., Evarts A. Graham, and Adele B. Croninger, Experimental Production of Carcinoma with Cigarette Tar, Cancer Research 13.12: 855-864 (1953). These researchers had come to a categorical understanding of the link between smoking and lung cancer. This understanding was markedly more certain than the case studies and preliminary statistical findings earlier in the century. While some of the epidemiological methods were innovative, the scientists using them were careful to approach them in a thorough manner; these methods were completely consistent with established scientific procedure and process.

293. For example, Doll and Hill understood that some critics might dismiss findings linking smoking to disease (as Defendants would try) as "merely" statistical. As a result, they meticulously described the specific criteria that they required before an "association" could be identified as a genuine causal relationship. First, they worked to eliminate the possibility of bias in the selection of patients and controls, as well as in reporting and recording their histories. Second, they emphasized the significance of a clear temporal relationship between exposure and subsequent development of disease. Finally, they sought to rule out any other factors that might distinguish controls from patients with disease. This explicit search for

possible "confounders" and their elimination marked a critical aspect of their arrival at a causal conclusion. They insisted on carefully addressing all possible criticisms and all alternative explanations for their findings. In this respect, Doll and Hill and the other epidemiologic investigators expressed a strong commitment to inductive science, hypothesis-testing, and scientific method: "Consideration has been given to the possibility that the results could have been produced by the selection of an unsuitable group of control patients, by patients with respiratory disease exaggerating their smoking habits, or by bias on the part of the interviewers. Reasons are given for excluding all these possibilities, and it is concluded that smoking is an important factor in the cause of carcinoma of the lung." Doll, Richard, and A. Bradford Hill, Smoking and Carcinoma of the Lung: Preliminary Report, British Medical Journal (1950).

294. And epidemiology was not only based on statistics, but instead was an interdisciplinary, applied field. The studies had substantially transformed the scientific knowledge base concerning the harms of cigarette use. Expert report of Allan M. Brandt, Ph.D. in United States v. Philip Morris.

295. Defendants' assertion that "[i]n 1964 the government adopted an entirely new method to judge the evidence of the causal relationship between cigarette smoking and disease," JD. PFF, p. 453, ¶ 926, is also false. The statement simply ignores the significant and conclusive research undertaken by researchers such as Richard Doll, A. Bradford Hill, Everts Graham, Ernst Wynder, Morton Levin and Oscar Auerbach more than a decade prior to the publication of the 1964 Surgeon General's Report. As set out above and at length in the United States' Preliminary Proposed Findings of Fact, much of this research, which began

in the 1940s, examined questions of causation by precisely the same methods that Defendants characterize as "entirely new" in 1964. See U.S. PFF, § IV.A.(2) & (3)(c). Defendants' assertion ignores the entirety of the scientific historical record.

296. Defendants' further assertion that "the government's creation of a policy of public health causation in 1964 not only changed the method of determining causation, it changed the concept of causation itself," JD. PFF, p. 454, ¶ 929, likewise ignores the history of scientific research. The further assertion that the 1964 Report "is a landmark because it constituted a true point of departure in the history of epidemiology by announcing 'criteria' through which a judgment about causality might be made," JD. PFF, p. 503, ¶ 1022, is presented in an argumentative fashion that seeks to obscure the fact that what the Advisory Committee identified as criteria for assessing causal connections was not a departure from anything, but merely an articulation of those considerations already employed by mainstream scientists and medical professionals. As set out above, the method by which Doll and Hill conducted their epidemiological study in the late 1940s and early 1950s was consistent with what the 1964 Surgeon General's Report identified as criteria for testing causal hypotheses. Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: US Department of Health, Education, and Welfare, Public Health Service, pp. 182-185 (1964).

297. The intimation offered by Defendants that the Public Health Service doubted the significance or conclusiveness of the research undertaken by scientists like Doll and Hill in the late 1940s and early 1950s, JD. PFF, pp. 459-62, 468-472, ¶¶ 940, 944, 957-961, is

unfounded.

298. In 1956, at the urging of Surgeon General Leroy Burney, a study group on smoking and health was organized by The American Cancer Society, The American Heart Association, The National Cancer Institute, and the National Heart Institute. This group of distinguished experts met regularly to assess the character of the scientific evidence relating to tobacco and health. At that time the group noted that sixteen studies had been conducted in five countries all showing a statistical association between smoking and lung cancer. Among the studies they summarized, it was demonstrated that: lung cancer occurs five-fifteen times more frequently among smokers than non-smokers; on a lifetime basis one of every ten men who smoke more than two packs a day will die of lung cancer; and cessation reduces the probability of developing lung cancer. Strong, Frank M., et al., Smoking and Health: Joint Report of the Study Group on Smoking and Health, Science 124: 1129-1133 (1957).

299. They also noted that the epidemiological findings were supported by animal studies in which malignant neoplasms had been produced by tobacco smoke condensates. Further, human pathological and histological studies added evidence to strengthen the "concept of causal relationship." The authors concluded:

> Thus, every morphologic stage of carcinogenesis, as it is understood at present, has been observed and related to the smoking habit.
>
> The sum total of scientific evidence establishes beyond reasonable doubt that cigarette smoking is a causative factor in the rapidly increasing incidence of human epidermoid carcinoma of the lung.

Strong, Frank M., et al., Smoking and Health: Joint Report of the Study Group on Smoking

and Health, Science 124: 1129 (1957).

300. In November 1959, United States Surgeon General Leroy E. Burney offered his own evaluation of the scientific evidence linking cigarettes to lung cancer. Burney revisited the epidemiologic data, as well as other confirmatory animal and pathological investigations. After a thorough assessment of current data, Burney came to the following conclusions:

> There can be no doubt that a significant portion of the increase in lung cancer is real. This rise has not been caused solely by improvements in diagnostic techniques, better reporting on death certificates, or an increase of older persons in the population. If we accept as valid the sequence of pathological changes given above the prevention of lung cancer, to a large extent, becomes possible. This will be accomplished if carcinogenic substances from any source can be kept out of the air inhaled into the lungs.

Burney, Leroy E., Smoking and Lung Cancer: A Statement of the Public Health Service, JAMA 71: 1835 (1959).

301. For Burney, this fact meant that there were important and timely opportunities to prevent disease:

> The Public Health Service believes that the following statements are justified by studies to date:
>
> 1. The weight of evidence at present implicates smoking as the principal etiological factor in the increased incidence of lung cancer.
>
> 2. Cigarette smoking particularly is associated with an increased chance of developing lung cancer.
>
> 3. Stopping cigarette smoking even after long exposure is beneficial.
>
> 4. No method of treating tobacco or filtering the smoke has been demonstrated to be effective in materially reducing or eliminating the hazard of lung cancer.
>
> 5. The nonsmoker has a lower incidence of lung cancer than the smoker in all controlled studies, whether analyzed in terms of rural areas, urban regions, industrial occupations, or sex.

6. Persons who have never smoked at all (cigarettes, cigars, or pipe) have the best chance of escaping lung cancer.

Unless the use of tobacco can be made safe, the individual person's risk of lung cancer can best be reduced by elimination of smoking.

Burney, Leroy E., Smoking and Lung Cancer: A Statement of the Public Health Service, JAMA 71: 1835 (1959).

302. Defendants' assertion that researchers such as Dr. E. Cuyler Hammond and Daniel Horn and organizations such as the American Cancer Society were "unconvinced that the first wave of studies provided evidence of a causal relationship," JD. PFF, p. 462-463, ¶¶ 945, 947, is also contradicted by the true evidentiary record.

303. In fact, Hammond and Horn conducted a massive epidemiological study of smoking and lung cancer under the auspices of the American Cancer Society. In the Hammond and Horn study more than 200,000 men were followed prospectively for nearly four years; during this period 12,000 died. Contrary to Defendants' suggestion that they doubted the causal link, Hammond and Horn found that not only was lung cancer far more prevalent among those who smoked as a cause of death (24 times more than non-smokers), so too was heart disease and circulatory disease. Hammond and Horn estimated that among smokers, smoking might account for up to 40 percent of their mortality. Hammond, E. Cuyler, and Daniel Horn, Smoking and Death Rates--Report on Forty-four Months of Follow-up of 187,783 Men, JAMA, 2840-2857 (March 15, 1958).

304. Defendants further attempt to dispute the significance of scientific research in the late 1940s and 1950s by asserting that "proof of the existence of a statistical relationship (i.e., proof of an association between variables) is not sufficient to demonstrate that association is

causal." JD. PFF, p. 464, ¶ 948. Defendants' argument is misplaced, because the studies conducted did not reach causal conclusions based on mere statistical relationships. Instead, researchers were committed to inductive science, hypothesis-testing, and scientific method. They worked to eliminate the possibility of bias in the selection of patients and controls, as well as in reporting and recording their histories, they emphasized the significance of a clear temporal relationship between exposure and subsequent development of disease, and sought to rule out any other factors that might distinguish controls from patients with disease. They insisted on carefully addressing all possible criticisms and all alternative explanations for their findings.

305. Defendants' assertions regarding statistical relationships are further misplaced and constitute a mis-characterization of the scientific record because they ignore the research that paralleled that of Doll, Hill, Hammond, Horn, Levin and others, and looked at the carcinogenic nature of cigarette smoke constituents. By the 1950s, animal research was also pointing to the carcinogeneity of cigarettes. Drs. Ernst Wynder and Evarts Graham turned their attention to the question of the "biological plausibility" of their epidemiological findings. In conducting animal investigations, Wynder reasoned that if tumors could be produced in animal models, it would be an important step in confirming the early epidemiologic findings. Noting that smoke condensates, also known as tars, contained benzpyrenes, arsenic and other known carcinogens, he painted the backs of mice to evaluate their effects. 58% of the mice developed cancerous tumors. Wynder concluded that "the suspected human carcinogen has thus been proven to be a carcinogen for a laboratory animal." These findings were reported in Cancer Research in December 1953. Wynder,

Ernst L., Evarts A. Graham, and Adele B. Croninger, Experimental Production of Carcinoma with Cigarette Tar, Cancer Research 13.12: 855-864 (1953).

306. Defendants acknowledge the mouse-skin painting experiments but argue they were "of little relevance to the risk of cancer in man." JD. PFF, p. 473, ¶ 963. Their arguments ignore the significance of research that determined that suspected human carcinogens in cigarette smoke caused cancerous tumors in laboratory animals at the same time that large epidemiological investigations found that cigarette smoking caused lung cancer. Their arguments ignore the conclusions offered by Arthur D. Little, Inc., which replicated the work of Wynder and Graham on behalf of Defendant Liggett Group and warned in 1961: "There are biologically active materials present in cigarette tobacco. These are: a) cancer causing b) cancer promoting c) poisonous d) stimulating, pleasurable, and flavorful." 2022969727-9728. Their arguments seek to obfuscate similar work performed by various Defendants that identified and acknowledged the carcinogenic constituents of cigarette smoke. For instance, a December 24, 1952 "Report of Progress - Technical Research Department" from Brown & Williamson contained a "Cancer" section, which noted: "The B&W lab has in the past made a partial isolation and identification of the aromatic hydrocarbons, benzopyrene, in both smoke and original tobacco from Raleigh blend cigarettes." The report refers to benzopyrene as a "carcinogenic hydrocarbon." 65020092-0092. In a February 1953 report drafted by Claude Teague, an R.J. Reynolds research scientist, entitled "Survey of Cancer Research with emphasis on Possible Carcinogens from Tobacco," admitted "that polynuclear aromatic compounds occur in the pyrolytic products of tobacco. Bensyprene and 'N-bensyprene[sic], both carcinogens, were identified in the

distillates." 501932947-2968. Philip Morris's Helmut Wakeham listed 15 carcinogens, or tumor starters, and 24 co-carcinogens, or tumor promoters, in cigarette smoke in a 1961 memorandum. 1001882121-2122.

307. As set out in detail in the United States' Preliminary Proposed Findings of Fact, at the same time that Defendants were detailing carcinogenic substances in cigarettes and potential strategies for their removal, TIRC put out a press release on asserting: "Chemical tests have not found any substance in tobacco smoke known to cause human cancer or in concentrations sufficient to account for reported skin cancer in animals." 500518873-8875 at 8874.

308. Defendants' denial of the significance of research establishing smoking as a cause of lung cancer also ignores the simultaneous study of clinical evidence that confirmed the causal link between smoking and lung cancer. Surgeons and pathologists published clinical reports associating cancer in their patients with their smoking habits. Ochsner, Alton, My First Recognition of the Relationship of Smoking and Lung Cancer, Preventive Medicine 2:611-14 (1973). In 1957, Oscar Auerbach and colleagues first reported in the New England Journal of Medicine on "Changes in the Bronchial Epethelium in Relation to Smoking and Cancer of the Lung." Auerbach's study evaluated patients who died and were autopsied with confirmed smoking histories. Microscopists were kept ignorant of the smoking histories in the 30,000 examinations that they made to assure against potential bias. Auerbach et al. concluded:

> These findings are fully consistent with the hypothesis that inhalants of one sort or another are important factors in the causation of bronchogenic carcinoma.

> The findings are also consistent with the theory that cigarette smoking is an important factor in the causation of bronchogenic carcinoma.

Auerbach presented additional confirmatory findings in 1961 and 1979. Auerbach, Oscar, et al., Changes in the Bronchial Epithelium in Relation to Smoking and Cancer of the Lung: A Report of Progress, New England Journal of Medicine 256.3:104 (1957); Auerbach, Oscar, et al., Changes in the Bronchial Epithelium in Relation to Cigarette Smoking and in Relation to Lung Cancer, New England Journal of Medicine 265.6: 253-267 (1961); Auerbach, Oscar, E. Cuyler Hammond, and Lawrence Garfinkel, Changes in the Bronchial Epithelium in Relation to Cigarette Smoking, 1955-1960 vs. 1970-1977, New England Journal of Medicine 300.8:381-386 (1979).

309. Defendants not only misrepresent the substance of scientific study, but also misrepresent responses to requests for admission served in this case. Specifically, Defendants make the nonsensical assertion that by admitting that the 1982 Surgeon General's Report indicated that the causal significance of an association is a matter of judgment that goes beyond a statement of statistical probability, the United States "must contend that . . . epidemiological methods cannot 'prove' that tobacco causes disease." JD. PFF, p. 465, ¶ 950. Defendants' assertion is tortured and illogical.

310. Equally illogical – and simply devoid of any evidentiary foundation or factual basis – is the assertion by Defendants that the "only reasonable interpretation of [answers to requests for admission] is that [the United States] does not contend that there was a medical or scientific consensus that cigarettes caused lung cancer prior to 1979, or that there was a medical and scientific consensus that cigarettes caused heart disease prior to 1983." JD. PFF,

p. 479, ¶ 974. This purported "interpretation" is nothing more than a fabrication that bears no relation to the United States' position on the issues cited by Defendants.

311. The evidence also demonstrates that Defendants' allegations of a "Double Standard" approach to causation in the Public Health Service to be a red herring. The attempt to analyze the import and impact of Defendants' fraudulent scheme within the context of internal discussions related to the development of Public Health Service statements on the health consequences of smoking – statements that were consistent with the conclusion that smoking had been established as a cause of lung cancer by the early 1950s – is inappropriate.

B. The 1964 Surgeon General's Report Assessed The Causal Relationship Between Smoking And Disease By Established Scientific Methods

312. Defendants' allegations of a "Double Standard" approach to causation in the Public Health Service to be a red herring. The attempt Defendants' assertion that the authors of the 1964 Surgeon General's Report were asked to answer a public policy question, JD. PFF, pp. 499-502, ¶¶ 1015-1020, is contrary to the historical record.

313. The Surgeon General's Advisory Committee on Smoking and Health was organized to evaluate the evidence about cigarettes and disease and offer a definitive assessment. As a result, the process of the committee's work, its selection, and its findings were designed to represent a model of objective, public scientific and medical inquiry based on a rigorous and systematic assessment of the health implications of smoking. Expert Report of Allan M. Brandt, Ph.D. in United States v. Philip Morris.

314. To establish the Advisory Committee, Surgeon General Luther Terry created a list of some 150 individuals. None were known to have taken a public position regarding the

relationship of smoking and health. These individuals represented a number of fields and medical specialties from pulmonary medicine to statistics, cardiology to epidemiology. This list was then circulated to the American Cancer Society, the American Heart Association, National Tuberculosis Association, American Medical Association, as well as the Tobacco Institute. Each group was permitted to eliminate any name, without any reason cited. Individuals who had already published on the issue or had taken a public position were also eliminated. The selection process indicated Terry's commitment to a process that would eventuate in a genuine and definitive consensus. He had insured that the Report could not be attacked on the basis of its membership. All ten of the members were eminent physicians and scientists; eight were medical doctors, one was a chemist and the other a statistician. Three of the panelists smoked cigarettes, two others occasionally smoked pipes or cigars. Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: U.S. Department of Health, Education, and Welfare, Public Health Service, p. 9 (1964); Fritschler, A. Lee, Smoking and Politics 42 (Englewood Cliffs, NJ: Prentice Hall, 1975).

The 1964 Report explained:

> All of the major companies manufacturing cigarettes and other tobacco products were invited to submit statements and any information pertinent to the inquiry. The replies which were received were taken into consideration by the Committee.

Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: U.S. Department of Health, Education, and Welfare, Public Health Service, p. 14 (1964).

315. Terry's first ten selections all agreed to serve on the Committee, indicating to him "that these scientists were convinced of the importance of the subject and of the complete support of the Public Health Service." Terry, Luther L., The Surgeon General's First Report on Smoking and Health: A Challenge to the Medical Profession, New York State Journal of Medicine 1254 (December 1983).

316. The Report drew on the respective disciplinary strengths of the committee members. Walter J. Burdette was a prominent surgeon and chair of the Surgery Department at the University of Utah; John B. Hickman was the Chair of Internal Medicine at the University of Indiana. Charles LeMaistre was a pulmonary specialist and head of a very large cancer treatment center. The pathologists joining the Committee were Emmanuel Farber, Chair of Pathology at the University of Pittsburgh; Jacob Furth from Columbia, an expert on the biology of cancer; and Maurice Seevers, Chair of the University of Michigan Pharmacology Department. Louis Feiser of Harvard University was an eminent organic chemist. Completing the Committee were Stanhope Bayne-Jones, a bacteriologist, former head of New York Hospital and dean of Yale Medical School, Leonard H. Schumann, epidemiologist at the University of Minnesota, and William G. Cochran, a Harvard University mathematician with expertise in statistical methods. Expert Report of Allan M. Brandt, Ph.D. in United States v. Philip Morris; Surgeon General's Advisory Committee on Smoking and Health, Smoking and Health: Report of the Advisory Committee to the Surgeon General of the Public Health Service, Washington, DC: U.S. Department of Health, Education, and Welfare, Public Health Service (1964).

317. Terry divided the work into two distinct phases. The first phase, the work of the Advisory Committee, was to determine the "nature and magnitude of the health effects of smoking." The Committee sought to arrive at a clinical judgment on smoking. As one public health official explained, "What do we (that is, The Surgeon General of the United States Public Health Service) advise our Patient, the American public, about smoking." Surgeon General's Advisory Committee on Smoking and Health, The Nature, Purpose and Suggested Formulation of the Study of the Health Effects of Smoking, Phase I, National Archives, Record Group 90, Typescript, p. 1.

318. The Committee met together nine times in just over a year. In between these meetings both committee members and staff worked to review, critique, and synthesize what had become a formidable volume of scientific work on tobacco. Terry promised that the report on these findings would be followed by phase II, proposals for remedial action. This was significant, for it kept the Committee away from the politics which swirled around the tobacco question. What Terry sought – and ultimately got – was a document that would be unimpeachable from a scientific point of view. Terry astutely recognized that the Advisory Committee could only speak with authority about the scientific nature of the health risks of smoking; he would leave the policy questions to the political process. Expert Report of Allan M. Brandt, Ph.D. in United States v. Philip Morris.

319. Accordingly, Defendants' attempts to portray the work of the Advisory Committee and the 1964 Report as the product of policy-making or politicizing must be rejected. Their assertion that the 1964 Report "crossed the threshold from science into public policy" is

unfounded, for it ignores the careful and precise manner in which the Advisory Committee worked to prepare a document that was truly unimpeachable from a scientific point of view.

C. Defendants' Attempt To Deny The Development Of Scientific Consensus As Justification For Their Fraudulent Conduct Ignores The Overwhelming Evidence Of Their Decades-Long Campaign Of Misinformation

320. The effort made by Defendants to distort scientific consensus in their Preliminary Proposed Findings of Fact as justification for their own conduct not only relies on misstatements of historical fact, but ignores their unwavering campaign to fraudulently dispute the health consequences of smoking in order to increase cigarette sales. The overwhelming evidence cited in the United States Preliminary Proposed Findings of Fact demonstrates that Defendants' public campaign of misinformation was undertaken with reckless disregard for the truth of assertions made – its sole purpose was to mislead. That Defendants conduct was fraudulent – and had a devastating impact on the health of the American public – is not based on a "premise that because a statement was [sic] made was at odds with a scientific consensus, that is some evidence of fraud," as Defendants' contend. JD. PFF, p. 479, ¶ 975.

321. Defendants' further effort to justify their own conduct by suggesting that their decades-long fraudulent campaign has merely been an academic exercise, questioning what they view as the subjective element in causal inference, JD. PFF, pp. 508-516, ¶¶1034-1048, is simply not credible and is contradicted by their actions and statements, both public and internal. See U.S. PFF, §§ IV.A.(3)(a), (b), (d), (f), (h)-(j) and IV.A.(4). The substance of those actions and statements shows Defendants' assertion that "there is no evidence that any

of the statements made by defendants did not reflect their actual beliefs or their actual judgments," JD. PFF, p. 516, ¶ 1048, to be false.

322. This overwhelming evidence of Defendants' conduct is conclusive evidence of the massive fraudulent scheme undertaken and perpetuated by Defendants.

D. To This Day, Defendants Continue To Express Scientific Doubt About Whether Cigarettes Cause Disease

323. The assertions in Chapter Five regarding Defendants' present "positions" on issues of causation are notable because, while Defendants assert that "no Defendant [presently] seeks to convince the public that smoking is not hazardous, and none publicly expresses scientific doubt about whether cigarettes cause disease," JD. PFF, p. 445, ¶ 912, the public positions they tout in their proposed findings are inconsistent with their lofty rhetoric.

324. For instance, Defendants assert that Philip Morris believes "there remain[] scientific questions regarding cigarette smoking and disease" and has only aligned its "views on this issue with those of the public health community" as "a matter of corporate policy." JD. PFF, p. 445, ¶ 913.

325. The position taken by defendant R. J. Reynolds constitutes an abject refusal to acknowledge publicly what it has recognized internally for decades – that cigarette smoking causes lung cancer and other diseases. R. J. Reynolds does not admit publicly that smoking causes disease, but instead is only willing to state that it believes "there has been and currently is widespread awareness" that "the Surgeon General and public health and medical officials" have concluded "that smoking causes serious diseases, including lung cancer and heart disease." JD. PFF, pp. 446-47, ¶ 915.

326. In 1997, after decades of false and materially misleading statements made without regard to truth of matters asserted, Brown & Williamson similarly only chose to acknowledge that "it was appropriate for public health authorities to make judgments about causation and that Brown & Williamson respected those judgments" and only went so far publicly as to indicate that "smoking may cause certain diseases." JD. PFF, pp. 448-49, ¶916 (emphasis added).

327. Defendants' assertion that they do not "publicly express[] scientific doubt about whether cigarettes cause disease," JD. PFF, p. 445, ¶ 912, is further contradicted by their continuing denials of the link between exposure to second hand smoke, or environmental tobacco smoke, and disease, discussed below at Section VII, and at length in the United States' Preliminary Proposed Findings of Fact, § IV.A.(4) and by false statements such as the charge made in their proposed findings that "to this day, researchers to not know the pathophysiology of lung cancer." JD. PFF, p. 441, ¶ 905.

VI. UNITED STATES' RESPONSE TO CHAPTER SIX

A. Defendants' Argument That They Relied On How "Addiction" Has Been Defined Is Irrelevant To The United States' Allegations In This Case

328. Defendants claim that the United States' allegations concerning their statements on nicotine addiction are misleading and ignore the state of knowledge concerning the addictiveness of cigarettes as it has existed through the years. See JD. PFF, pp. 519-30. In addition, Defendants argue that their position through the years concerning the addictiveness of cigarettes was due to the fact that there never was a clear, uniform definition of "addiction" upon which everyone agreed and that they simply relied on what appeared to be the consensus in the medical and scientific communities at the time. See JD. PFF, pp. 517-30. Nothing could be farther from the truth. Defendants' argument that they simply relied on how the term "addiction" was used at the time is immaterial and contrary to overwhelming evidence, including their own internal documents.

329. In this case, the United States does not allege that Defendants' actions were fraudulent merely due to a difference in opinion regarding the accepted definition of the term "addiction." Instead, the United States has established that not only did Defendants know that smoking was addictive, but that nicotine was the ingredient that caused and maintained the addiction and that the cigarette was the optimal nicotine delivery vehicle. See U.S. PFF, § IV. B (3), pp. 458-517. As proof, the United States referred to Defendants' own documents describing their examination of nicotine's pharmacological effects on smokers, which

demonstrate unequivocally that they have studied nicotine for quite some time and have understood for decades the central role nicotine plays in keeping smokers smoking. These internal documents also demonstrate Defendants' long-held knowledge that cigarette smoking and tobacco were the best means of delivering nicotine to smokers. Id.

330. For example, in a January 1, 1972 research report titled "Motives and Incentives in Cigarette Smoking," Philip Morris scientist William Dunn stated that people smoke in order "to obtain nicotine," and that nicotine "is the industry's product," adding that "without nicotine, the argument goes, there would be no smoking." 1001804656-4659 at 4656. Dunn later urged the industry to view the cigarette pack as the "storage container for a day's supply of nicotine," the cigarette as the "dispenser for a dose unit of nicotine," and the puff of smoke as the "vehicle of nicotine." 2023193286-3304 at 3290.0

331. Documents relating to defendant R.J. Reynolds also could not be any clearer on these points. In an April 14, 1972 report, titled "Research Planning Memorandum on the Nature of the Tobacco Business and the Crucial Role of Nicotine Therein," Claude Teague of R.J. Reynolds stated:

> In a sense, the tobacco industry may be thought of as being a specialized, highly ritualized and stylized segment of the pharmaceutical industry. Tobacco products, uniquely, contain and deliver nicotine, a potent drug with a variety of physiological effects. . . . a tobacco product is, in essence, a vehicle for delivery of nicotine. . . . If nicotine [as proposed above] is the sine qua non of tobacco products and tobacco products are recognized as being attractive dosage forms of nicotine, then it is logical to design our products – and where possible, our advertising – around nicotine delivery rather than 'tar' delivery or flavor.

500915683-5691 at 5684-5685 (emphasis added).

332. With regard to BATCo, in a November 15, 1961 memorandum detailing discussions regarding current research and development projects, Sir Charles Ellis, scientific advisor to the BAT Board of Directors, acknowledged BATCo's knowledge that nicotine is addictive: "Experiments of Hippo have led to a great increase in our knowledge of the effects of nicotine . . . Smoking demonstrably is a habit based on a combination of psychological and physiological pleasure, and it also has strong indications of being an addiction. It differs in important features from addiction to other alkaloid drugs, but yet there are sufficient similarities to justify stating that smokers are nicotine addicts." 301083862-3865 at 3863.

333. Brown & Williamson possessed similar knowledge as well. In a 1963 document, B&W general counsel Addison Yeaman stated that "nicotine is addictive" and that "we are . . . in the business of selling nicotine, an addictive drug effective in the release of stress mechanisms." 689033412-3416 at 3415.

[REDACTED]

334. In addition, the United States cited to internal documents to show that Defendants attempted to withhold and did withhold from public dissemination, and from public health authorities, accurate information regarding the addictiveness of nicotine in cigarettes. They did this through the suppression of their own corroborative research findings and by fostering

unnecessary controversy about the addictiveness of nicotine. See U.S. PFF, § IV. B (4), pp. 478-89.

335. For example, in a November 3, 1977 memorandum, Philip Morris's Principal Scientist William Dunn described its strategy of concealing unfavorable research results. Regarding a nicotine study, Dunn stated, "If she is able to demonstrate, as she anticipates, no withdrawal effects of nicotine, we will want to pursue this with some vigor. If, however, the results with nicotine are similar to those gotten with morphine and caffeine, we will want to bury it." 0000128680-8680. In March 1980, Dunn produced an internal memorandum discussing Philip Morris research concerning the psychopharmacology of nicotine. The research was "aimed at understanding that specific action of nicotine which causes the smoker to repeatedly introduce nicotine into his body." The internal memorandum noted that it was "a highly vexatious topic" that company lawyers did not want to become public because nicotine's drug properties, if known, would support regulation of tobacco by the Food and Drug Administration ("FDA"). Consequently, the memorandum observed, "our attorneys . . . will likely continue to insist on a clandestine effort in order to keep nicotine the drug in low profile." 0000127789-7790. The United States also cited to documents that showed that Philip Morris had suppressed nicotine research performed by one of its own scientists after it began producing data that supported nicotine's addictiveness. See U.S. PFF, § IV. B (4)(a), pp. 481-84.

336. Concerning R.J. Reynolds, a May 24, 1977 memorandum titled "Research Department: Long Range Planning Phase I," stated that a key goal of the R.J. Reynolds R & D department was to combat scientific literature unfavorable to smoking and to generate data favorable to smoking: "Protection against the claims of the professed enemies of the tobacco

industry." It was hoped that if R.J. Reynolds took the offensive in presenting information favorable to both R.J. Reynolds and the industry as a whole, "the impact of the oft-repeated arguments of anti-tobacco forces may be partially offset." 502314530-4547 at 4531, 4533.

337. Regarding the American Tobacco Company, in a September 16, 1938 letter, H.R. Hammer of American's R & D department informed George W. Hill, an American Vice President, that research performed on dogs had demonstrated an increase in blood pressure due to the cigarette's nicotine. Mr. Hammer added that while this was "very clear-cut biological evidence, . . . nothing of this sort could ever be used in presenting facts to the public." MNAT00115492-5492.

338. With regard to BATCo, in an October 25, 1978 memorandum titled "Notes on BAT/ITL Joint Meeting," Ed Jacob, longtime tobacco industry outside counsel, advised "a total embargo on all work associated with the pharmacology of nicotine and the benefits conferred by smoking for three reasons," including "a pending California lawsuit which indicted nicotine as an addictive substance," and another lawsuit "against [HHS Secretary] Califano to show cause why tobacco should not be brought under the powers of the FDA." 110083647-3650 at 3649-3650.

339. Regarding Brown & Williamson, in an August 16, 1984 memorandum to E.E. Kohnhorst, Brown & Williamson Senior Vice President, and General Counsel Ernest Pepples advised against the company's use of a report titled "The Functional Significance of Smoking in Every Day Life" due to the report's apparent concession that "many potential criteria for addiction identification are met by smoking behavior," and its reference to smoking as "one form of 'drug usage', 'psychoactive substance usage', or 'psychoactive drug usage'." 682015254-5255 at 5254.

340. As for Lorillard, in a November 9, 1976 memorandum, Lorillard researcher R.E. Smith urged that an industry wide effort to offer a product with 50% less nicotine should be discontinued despite "considerable consumer trial appeal" because such a cigarette could not deliver sufficient "smoking satisfaction" (a euphemism for addiction) for its purchasers. 01244504-4504. The United States also cited to documents relating to similar activities carried out by industry funded entities such as CTR and TI. See U.S. PFF, § IV.B(4)(g), pp. 487-89.

341. Thus, contrary to Defendants' claims, their actions were indeed fraudulent and were not the result of confusion over the definition of the term "addiction."

B. The Lack Of Consensus For The Term "Addiction" Can Be Linked To Defendants' Own Actions, And Not Any Inaction Or Indifference On The Part Of The United States

342. Defendants also allege that the supposed confusion over whether there could be nicotine "addiction" was due to the United States' inaction or indifference to the issue. See JD. PFF, pp. 534-47. More specifically, Defendants allege that the United States government knew about the addictive properties of nicotine for decades, yet did little to make the public aware of this fact, going so far as to create confusion on this issue through its changing definition of the term "addiction." Id. These allegations, like many of the others contained in Defendants' filing, are false and misstate the actual scientific and medical environment that existed for this issue. As demonstrated repeatedly throughout the United States' filing, Defendants knew, even before 1964, that nicotine in cigarettes was addictive even if the scientific community did not because Defendants had access to information and their own internal studies not then available to the scientific community. See U.S. PFF, § IV.B(3), pp. 458-478. For example, in the early 1960s, BATCo sponsored research at the Battelle

Memorial Institute in Geneva, Switzerland concerning the physiological aspects of smoking, see U.S. PFF, § IV.B(3), p. 468, which found, among other things, that nicotine was addictive. Instead of providing these research findings to the Surgeon General prior to the first Report on Smoking and Health, Defendants decided to keep the results to themselves. See U.S. PFF, § IV.B(3), p. 474.

343. In contrast, and contrary to Defendants' view expressed in numerous public statements, uncertainties concerning the addictiveness of tobacco products that existed in the 1960s and 1970s were not resolved by simply changing definitions of "addiction" to fit nicotine. Rather, the scientific and medical understanding of drug addiction has advanced considerably since the release of the 1964 Surgeon General's Report, which relied upon 1950s World Health Organization ("WHO") criteria that essentially construed drug addiction as a personality disorder. This concept and others were replaced by criteria and diagnostic techniques to measure addictive effects including physiological dependence, withdrawal, reinforcement, and psychoactive effects. In fact, the prominence given to personality disorder and the intoxicating effects of the drug as essential determinants of addiction were abandoned by the WHO itself in 1964, but too late to serve the authors of the 1964 Surgeon General's Report.

344. In that Report, smoking was disqualified as addictive because it did not meet what were thought to be the primary requirements for an "addiction": a state of intoxication, an overpowering need to ingest nicotine, and a significant physical dependence. Since that Report, however, data has demonstrated, unequivocally, that nicotine in cigarettes is addictive by the same criteria that heroin and morphine were concluded to be addictive. See U.S. PFF, § IV.B(1), p. 443. By the early to mid 1980s, leading scientists and organizations

with expertise in tobacco and drug addiction had come to the conclusion that nicotine was an addictive drug and that tobacco use was maintained by nicotine addiction. In 1987, the American Psychiatric Association ("APA") published the Diagnostic and Statistical Manual Of Mental Disorders III-R ("DSM-III-R"), in which nicotine was specifically identified as a drug of dependence. See U.S. PFF, § IV.B(1), p. 444.

345. The next year, the focus in determining addiction became the user's loss of control over use of the drug. The Surgeon General, began to apply evolving criteria for drug addiction: (1) highly controlled or compulsive use; (2) of a drug with mood altering effects; and (3) drug-reinforced behavior. This thinking was bolstered in 1994, with the creation of the Diagnostic And Statistical Manual of Mental Disorders-IV ("DSM-IV"), in which the APA recognized the existence of both nicotine dependence and nicotine withdrawal. See U.S. PFF, § IV.B(1), p. 445. Thus, by 1988 at the latest, there was an overwhelming consensus in the scientific and medical community that cigarette smoking is an addictive behavior and that nicotine is the component in cigarettes that causes and sustains the addiction. Additionally, the FDA in 1996 confirmed that even by its most stringent criteria, nicotine in cigarettes is an addictive drug. See U.S. PFF, § IV.B(1), p. 446. Today, it is common knowledge in the scientific and medical community that nicotine is addictive, not only under the 1988 Surgeon General's Report, but under the 1964 Surgeon General's Report as well.

346. In contrast to the mainstream scientific and medical communities, whose understanding of the preeminence of nicotine developed much more slowly, Defendants well understood the primary role of nicotine in sustaining smoking addictiveness by the 1960s, and designed their products to deliver sufficient nicotine for this purpose. Furthermore, as

stated earlier, Defendants not only suppressed this information, but deliberately fostered controversy on the issue of nicotine addiction, knowing full well that nicotine was, in fact, the ingredient that kept people smoking.

C. Defendants' Assertion That The Use Of The Term "Addiction" Was For Media Advocacy Purposes Is Both Insulting And Incorrect

347. In their preliminary proposed findings of fact, Defendants allege that the United States' decision to describe cigarette smoking as an "addiction" was part of a media advocacy strategy to reach the goal of eliminating tobacco use. See JD. PFF, p. 534. Defendants point to no "facts" that support this absurd claim because there are none. Indeed, the United States' position was only developed after many years of working with the medical and science community in an effort to determine the effects of nicotine from cigarettes on the body. See U.S. PFF, § IV.B(1), pp. 443-46. To suggest otherwise is to attribute a motive to the United States' efforts that has no basis whatsoever in fact.

348. In fact, the only evidentiary support Defendants provide for this allegation is a 1988 Department of Health and Human Services report titled Media Strategies for Smoking Control. This document merely states the potential for using media sources for promoting its health messages regarding smoking and nicotine, given the great success Defendants had in promoting their products in the same way. EDA0430143-0188 at 0149. There is no basis to conclude that this was done in an effort to mislead the public, as opposed to trying to educate them about the risks researchers had discovered.

D. Contrary To Defendants' Allegations, The United States Was Not Aware for Decades About The Addictiveness Of Nicotine

349. In their preliminary proposed findings of fact, Defendants also allege that the United States was in fact aware of the addictiveness of nicotine for decades yet did nothing

about this fact. See JD. PFF, pp. 534-47. Once again, Defendants have made a demonstrably false, unsupportable allegation. Through this allegation, Defendants hope to paint a picture whereby an indifferent government failed to look out for the health and welfare of its citizens with regard to nicotine. The United States was aware of some of nicotine's pharmacological effects, such as a mild sedative effect and an increased attention span/alertness in smokers. However, as it did not have access to the research being performed by the tobacco companies, who were the leaders in tobacco research and the effects of nicotine on smokers, the United States and the medical and scientific community were not aware of research that demonstrated, conclusively, the addictiveness of nicotine. See U.S. PFF, § IV.B(1), pp. 443-48. Moreover, as set forth in the United States' Preliminary Proposed Conclusions of Law, the United States' actions, knowledge or inaction is completely irrelevant as to whether Defendants committed fraud.

350. As stated several times before, Defendants have engaged in a constant pattern of deceit and suppression when it came to the issue of nicotine. Due to Defendants' withholding and suppression of nicotine-related research findings, the United States' knowledge of the intensely addictive properties of nicotine was well behind that of Defendants and did not truly advance until the 1980s. See U.S. PFF, § IV.B(1), p. 443. Once more fully aware of nicotine's addictive properties, through the evolution of medical and scientific conclusions on the issue, the United States took action. In 1988, the Surgeon General, through the Report, The Health Consequences of Smoking: Nicotine Addiction, developed a set of criteria that determined that tobacco-delivered nicotine was addictive. The Health Consequences of Smoking: Nicotine Addiction: A Report of the Surgeon General (1988) at 7. Furthermore, the FDA investigated the nicotine issue and, in 1996, issued its Final Tobacco Rule that

confirmed that nicotine in cigarettes is an addictive drug. Expert Report of Jack E. Henningfield, Ph.D in United States v. Philip Morris. Since the 1980s, the United States has undertaken the effort to make people aware not only of the dangers of smoking, but of the addictiveness of the nicotine in cigarettes. The United States has also closely monitored the cigarette industry and has established federal policies aimed at curbing the dangers of smoking. Finally, through this lawsuit, the United States seeks to have the Defendants held responsible for their long history of concealing and suppressing the information that smoking is dangerous and tobacco-delivered nicotine is addictive. Thus, contrary to Defendants' allegations, the United States has not ignored this important health issue.

351. As support for their allegations, Defendants cite to several research memoranda and letters as evidence that the United States was well aware of the addictive properties of nicotine for quite some time. See JD. PFF, pp. 534-47. However, these documents, which include draft governmental agency research reports, as well as letters from members of Congress to the United States health and science community, do not prove anything of the sort. In these documents, discussions involving nicotine's properties do occur. Various researchers and other health officials discuss the importance of nicotine for smokers and state the need for more research so that the issue of nicotine's addictiveness could be decided. However, contrary to what Defendants assert, these documents are not inconsistent with the United States' position on nicotine over the years. The United States has clearly stated that the addictiveness of nicotine had been an issue of study for quite some time. However, what Defendants fail to mention is that this research was far behind that performed by Defendants, which determined as early as the 1960s that nicotine was addictive and that Defendants failed to make these findings public. Plainly, the United States and the scientific community's

efforts to more fully understand the addictive nature of nicotine would have been significantly aided had Defendants timely and fully disclosed what they knew about nicotine's addictiveness.

352. Defendants also cite to several 1980s era documents relating to the FDA's regulation of several nicotine replacement products as support for these allegations. The documents cited by Defendants consist solely of a 1981 information summary concerning Dow Pharmaceutical Company's application to market Nicorette and an excerpt from the 1984 Surgeon General's Report discussing the FDA's approval of a nicotine chewing gum. See JD. PFF, pp. 542-43. These documents fail to provide support for Defendants' argument. By the 1980s, the medical and scientific communities had reached the consensus that nicotine was addictive. Once this was determined, in large part by government studies, the United States took action to address the problem. Therefore, any 1980s era documents do nothing for the Defendants' allegations, but instead help bolster the United States' case. As a result, Defendants' allegations fall flat on their face and are shown to be nothing but groundless accusations.

E. Defendants' Preliminary Proposed Findings Of Fact Are Filled With Several Mischaracterizations And Other Inaccuracies

353. Defendants' preliminary proposed findings of fact contain several general mischaracterizations and inaccuracies that must be addressed. First, Defendants state that the 1964 Surgeon General's Report stated that cigarette smoking was "habituating," but not "addictive." See JD. PFF, p. 514. This statement mischaracterizes the state of knowledge at that time because it does not discuss the criteria that were used by the Surgeon General at that time to make the determination. As stated earlier, the 1964 Surgeon General's Report relied upon outdated criteria, developed in the 1950s by the World Health Organization, that

construed drug addiction as a personality disorder and not a health condition. In fact, the prominence given to personality disorder, as well as drug intoxication, as essential criteria for addiction was abandoned in 1964, which was too late to help the authors of the Surgeon General's Report. See U.S. PFF, § IV.B(1), p. 442. These outdated concepts were replaced by criteria and diagnostic techniques (discussed earlier) that revealed the true addictiveness of nicotine and therefore of cigarette smoking. Ironically, the overall consensus in the medical and scientific community today is that nicotine is addictive under both the 1964 and 1988 Surgeon General's Reports. See U.S. PFF, § IV.B(1), p.446. Thus, through their reliance on a superficial discussion of the 1964 Surgeon General's Report, Defendants mischaracterize the evolution of the United States' knowledge concerning addiction.

354. Defendants also state that "reviewers and drafters of the 1988 Surgeon General's Report feared that describing cigarette smoking as an 'addiction' had potentially negative consequences." See JD. PFF, p. 532. In support of that statement, Defendants cite to one document which discusses potential adverse implications associated with the word "addiction." A review of the document itself, which is a memorandum describing the results of a Department of Health and Human Services working meeting dealing with the issue of the addictiveness of tobacco use, reveals that Defendants have taken the document completely out of context. The participants in the working conference did not decide conclusively that the use of the term "addiction" was ill-advised. They were simply listing arguments against using the term. In fact, arguments in favor of using the term were provided as well. HHS048 3703-3708 at 3708. In addition, Defendants fail to mention that the meeting attendees were able to establish that "tobacco use can indeed be viewed as an addiction." HHS048 3703-3708 at 3703. So, despite the alleged "concerns" over the use of the term "addiction," the

meeting participants still determined that cigarette smoking and nicotine were addictive. This document viewed in its proper context does not support Defendants' claims.

355. Finally, Defendants state that "during the 1994 Congressional hearings on smoking and health, executives for Defendants were not allowed to fully explain their positions as to whether nicotine was addictive." See JD. PFF, p. 547. This statement is false. During the 1994 Congressional hearings, executives for Defendants were permitted to submit written opening statements in which they challenged the notion that smoking was addictive. Indeed, many of the submissions themselves were false and misleading. Furthermore, testimony transcripts reveal that the executives were given the opportunity to provide their opinions on the issue. Some, like Robert Johnston, stated that nicotine was not addictive because there was no intoxication. 2023195780-5781 (Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce, House of Representatives, 103rd Congress, April 14, 1994). The others all definitively stated that nicotine was not addictive and were not prohibited from elaborating on their positions. See U.S. PFF, § IV.B(2), pp. 449-455. In fact, Philip Morris also provided a letter from its director of research that clearly stated that nicotine was not addictive. 2029200293-0294 at 0294. Furthermore, Defendants all issued public statements, in advertisements and press releases, that emphatically claimed that smoking and nicotine were not addictive. See U.S. PFF, § IV.B(2), pp.448-57. Finally, in later deposition and congressional testimony, executives from the Defendants made it clear that they did not believe smoking and nicotine to be addictive. Id. Indeed, Defendants spent millions of dollars to publicize their statements, including statements through the Tobacco Institute, in furtherance of their fraudulent scheme. So, any attempt by Defendants to claim that they

were not given the opportunity to clearly state their positions on the addictiveness of nicotine and smoking is not supported by the record and must be dismissed in kind.

F. Contrary To Defendants' Assertions, The Likelihood Of Future Misconduct Remains High

356. Defendants claim that "there is not a reasonable likelihood that defendants will engage in such criminal conduct in the future" as they now do not deny that smoking is addictive. See JD. PFF, pp. 514, 548-50. This is clearly an instance where Defendants are splitting hairs. Defendants do not come out and specifically state that they agree with the consensus in the medical and scientific community that smoking and nicotine are addictive. Rather, they simply "accept" this consensus in the interest of avoiding any further discussion on the topic. See JD. PFF, pp. 548-50. As stated in the United States' Preliminary Proposed Findings of Fact, at pages 449 through 457, each Defendant then equivocates on this issue:

> On its website, Philip Morris states that "[w]e agree with the overwhelming medical and scientific consensus that cigarette smoking is addictive."

http://www.philipmorrisusa.com/healthissues/addiction:asp. However, while adding that it can be difficult to quit smoking, there is no mention of the established fact that the nicotine in cigarettes is what causes the smoker's addiction. Id. (The United States notes that on January 6, 2003, Philip Morris admitted for the first time in a legal pleading in this case that "nicotine in cigarette smoke is addictive," after previously contending that the available scientific evidence did not support that conclusion. Philip Morris has not offered any explanation for the change in its corporate position on the addictiveness of nicotine, nor has it changed its corporate website or other public materials to reflect this change. Philip Morris Incorporated's First Supplemental Responses to Plaintiff's First Requests for Admission to All Defendants (January 6, 2003); Philip Morris Incorporated's Second Supplemental Response to Plaintiff's

Specific Interrogatories to Defendants Philip Morris, Inc. and Philip Morris Companies, Inc. (January 6, 2003), p. 6.).

357. On its website, BATCo states that "[w]e accept the common understanding today that smoking is addictive." http://www.bat.com/oneweb/sites/uk3mnfen.nsf/wwPageswebLive/BEDB4BB/FDD4F7CE80256BF4000ee157?open document. Yet, when discussing quitting smoking, the company makes no mention of the role nicotine plays in maintaining the addiction, downplaying the success of nicotine replacement therapy in helping smokers quit, and stating that the most important factors in successful quitting are "having the motivation and the self-belief that you can quit." http://www.bat.com/oneweb/sites/uk3mnfen.nsf/wwPageswebLive/BEDB4BB/FDD4F7CE80256BF4000ee157?open document.

358. On its website, R.J. Reynolds states that "[m]any people believe that smoking is addictive, and as that term is commonly used, it is." However, R.J. Reynolds later equivocates on this statement, stating its disagreement with the opinion in the health and scientific communities that smoking is as addictive as heroin or cocaine. No mention is made of nicotine and its strong hold on smokers. http://www.rjrt.com/TI/TIquitting.asp.

359. On its website, Brown & Williamson states that it "agrees that, by current definitions of the term 'addiction,' including that of the Surgeon General in 1988, cigarette smoking is addictive." However, like R.J. Reynolds, it also states its rejection of a comparison between smoking cigarettes and using heroin or cocaine. Finally, while admitting that quitting smoking can be very difficult, it stated its rejection of the notion that "the term 'addiction' should be used to imply that there is anything in cigarette smoke that

prevents smokers from reaching and implementing a decision to quit." http://brown-and-williamson.com/SHC/Index.cfm?ID=8&Sect=3. Nicotine is not mentioned in this addiction section.

360. In addition, today, in spite of the overwhelming medical and scientific evidence to the contrary, only one Tobacco Company Defendant, Liggett, has placed a warning on its packages stating that nicotine is addictive. See U.S. PFF, § IV.B(2), p.457. With statements and actions like these, it is clear that Defendants have not truly changed their ways. Thus, there is, at minimum, a reasonable likelihood of Defendants' continuing deceptive and misleading conduct.

G. Despite Being Aware of Nicotine's Addictiveness And Its Importance To Smokers, Defendants Used Various Methods To Manipulate The Amount And Form Of Nicotine Delivered By Cigarettes

361. As set forth in the United States' Preliminary Proposed Findings of Fact, Defendants engaged in research designed to determine the optimal amount of nicotine to deliver to smokers in cigarettes. They did so with the belief that delivery of a minimal amount of nicotine must be achieved in order to create and sustain addiction in smokers–a necessary component of staying in business. See generally U.S. PFF, § IV.C.

362. Thus, various methods of modifying nicotine delivery were designed and tested by all the companies. These methods included, but were not limited to, adding chemical bases to the smoke in order to raise smoke pH, adding nicotine to the leaf blends, modifying filters, creating a genetically modified nicotine-enriched tobacco plant, and selectively blending tobacco to achieve desired nicotine content. See generally U.S. PFF, § IV.C.(2). Defendants admit to the use of many of these techniques in their preliminary proposed findings of fact, including adding nicotine to reconstituted tobacco, JD. PFF, ¶ 680, using selective leaf

blending, additives, casings, and ventilation systems, JD. PFF, ¶ 681, and the use of ammonia. JD. PFF, ¶ 682.

363. Despite their use of various methods to manipulate the amount, and form, of nicotine delivered by cigarette, all of the cigarette manufacturing Defendants and the Tobacco Institute made public statements denying the manufacturing companies manipulated nicotine. See generally U.S. PFF, § IV.C(3). These statements were made during televised Congressional hearings, and in print advertising, id., all of which Defendants knew, and intended, would be delivered to the American public via mail and/or wire transmissions.

364. Instead of disputing any of the facts regarding methods to control nicotine delivery, Defendants instead claim these nicotine-related product modifications are not made in order to create and sustain addiction. Thus, while Defendants admit that various methods are used that control nicotine in their cigarettes, they suggest that these methods are used merely to "make [cigarettes] more acceptable to consumers," provide low tar and light cigarettes to consumers, and meet FTC requirements. JD PFF, ¶¶ 680-682. Defendants also claim their public denials about nicotine manipulation were not intended to be fraudulent, but rather were issues of semantics – they simply chose to define their conduct as something other than manipulation. JD. PFF, ¶¶ 680-682. Both of these issues of intent which Defendants attempt to place in dispute are undermined by the companies' documents and public statements, especially when the context of the statements is considered.

365. Defendants' claim, both in their preliminary proposed findings of fact and during 1994 Congressional Hearings, accord U.S. PFF, ¶¶ 842-846, that the companies do not intend to create and sustain addiction through the manipulation of nicotine is undermined by the vast historical evidence available in the companies' files. Indeed, Philip Morris employee William

Dunn touted the role of the cigarette as a nicotine delivery device for an intra-industry meeting in 1972, writing:

> The cigarette should be conceived not as a product but as a package. The product is nicotine. . . . Think of the cigarette pack as a storage container for a day's supply of nicotine. . . . Think of the cigarette as a dispenser for a unit dose of nicotine.

366. Well aware of the role of nicotine in creating and sustaining addiction, and the cigarette's ability to deliver nicotine quickly and efficiently, Defendants sought to determine optimal nicotine levels, ways to modify their products to delivery nicotine efficiently, and ways to modify the naturally occurring decrease in nicotine that occurred when tar was filtered from the cigarettes. Substantial proof of all these facts – gleaned from Defendants' internal documents – is set forth in the United States Preliminary Proposed Findings of Fact. See generally U.S. PFF § IV.C(1), (2). Further, Defendants' nicotine modification efforts were guided, at least in part, by the belief that delivering lower amounts of tar and nicotine–so long as it was enough to sustain addiction–would positively affect their sales. Id. § IV.C.(1)(b).

367. Despite their internal knowledge regarding the purpose and methods of altering cigarettes to deliver adequate amounts of nicotine, Defendants denied before Congress, and in print, that they controlled nicotine levels through their manufacturing processes and manipulated nicotine. Defendants' claims now that denials about "manipulation" were merely semantic and not designed to mislead, ignore both the context and substance of the statements. When many of these statements were made, Defendants were engaged in a battle with the FDA over the regulation of nicotine. As evidenced by Defendants' denials at the time regarding whether nicotine was addictive, the companies were using any method necessary to obfuscate the FDA and Congress' understanding of the role of nicotine in the

cigarette. Their statements extended beyond nicotine manipulation, and into the realm of nicotine generally – going so far as to deny nicotine's addictiveness, despite the overwhelming evidence to the contrary in the companies' own files. Compare, e.g. U.S. PFF, § IV.B(2) (Defendants' public statements regarding nicotine addiction) with U.S. PFF, § IV.B(3) & (4) (Defendants' internal knowledge regarding addiction and efforts to suppress the same). Thus, denying that nicotine was manipulated became not merely a dispute over semantics, but the necessary corollary to the companies' position that the substance was not addictive.

368. Moreover, Defendants' own words belie the specious argument that their public statements regarding nicotine delivery were merely their choice not to use the "political" word "manipulation." Not only is it Defendants' conduct and not the word "manipulation" that is at issue in this litigation, but the record also shows that Defendants' statements were not limited merely to disputes about whether or not nicotine was "manipulated." For instance, Philip Morris's Chief Executive Officer not only testified that the company did not manipulate nicotine, but also that it did not "independently control the level of nicotine in our products." Regulation of Tobacco Products (Part I) Hearings before the Subcommittee on Health and the Environment of the Committee on Energy and Commerce House of Representatives, 103rd Cong. 542 (March 25 and April 14, 1994) (testimony of William Campbell, President, Philip Morris U.S.A.) (emphasis added). Andrew Tisch of Lorillard testified that "Lorillard does not take any steps to assure minimum level of nicotine in our products." Id. at 592-93 (testimony of Andrew H. Tisch, Chairman, Lorillard Tobacco Co.).

369. Finally, Defendants' "manipulation" of nicotine levels also extends to their alteration of nicotine to tar ratios, another subject about which they made misleading

statements. The industry's own documents show that Defendants sought to, and did, use techniques to deliver higher quantities of nicotine in lower tar products, or to deliver the nicotine in methods determined to produce greater satisfaction. U.S. PFF, ¶¶ 704-726. Publicly, however, the industry insisted nicotine levels follow tar levels. See, e.g. U.S. PFF, ¶¶ 850-854.

VII. UNITED STATES' RESPONSE TO CHAPTER SEVEN

A. Defendants Developed A Strategy To Fraudulently Dispute The Health Risks Of Exposure To Environmental Tobacco Smoke

370. Defendants mischaracterize the Environmental Tobacco Smoke ("ETS") issue in this case as being whether they are guilty of fraud merely "by expressing view points about ETS" and whether "any expression of disagreement with the notion that ETS causes disease in non-smokers would be fraud." JD. PFF, p. 551, ¶ 1129. They also claim that "the entire scientific discourse about ETS has occurred in public view." JD. PFF, p. 551, ¶ 1130. As set forth in the United States' proposed findings, however, Defendants' conduct on the ETS issue has been anything but an open scientific discussion about the health effects of ETS fully within the public view. U.S. PFF, § IV.A(4).

1. Defendants Did Not Support An Open, Scientific Debate On The Health Effects Of Environmental Tobacco Smoke

371. From at least the early 1970s onward, Defendants recognized that the ETS issue posed a significant threat to the industry which could have a devastating effect on sales. TIMN0067732-7755; 502668016-8018; 2021502102-2134; 501565967-6019. Because ETS threatened the health of non-smokers (who were involuntarily exposed to it), smoking became not a matter of individual choice but one of public health. The health risk of ETS to the non-smoker served – and continues to serve – as the basis for restricting smoking in public places. Such restrictions threatened to reduce the number of cigarettes consumed, thereby lowering Defendants' profits. The industry estimated that three to five fewer cigarettes smoked per smoker per day would reduce profits by more than $1 billion per year. 2025771934-1995.

372. Defendants also feared that the link between ETS and disease would increase their litigation exposure through product liability cases, conspiracy and fraud claims, and other ETS related law suits. 2023371119-1157.

373. Concerned about this threat to their profits, Defendants embarked upon a well-orchestrated, coordinated campaign to discredit the science establishing that people exposed to ETS are subject to greater health risks, with the hopes of keeping the controversy alive. U.S. PFF, § IV.A(4).

374. Perhaps most revealing about Defendants' conduct on the ETS issue was the central role lawyers played in organizing the industry's response, particularly Donald Hoel of the law firm of Shook, Hardy & Bacon and John Rupp of the law firm Covington & Burling. As explained in the United States' Preliminary Proposed Findings, lawyers were involved in the selection and management of ETS research projects through industry organizations, such as the Council for Tobacco Research ("CTR") and the Center for Indoor Air Research ("CIAR"); and other groups, such as INFOTAB, the ETS Advisory Group, the Indoor Air Pollution Advisory Group, and various committees. Lawyers also were involved in the management of misinformation campaigns through the Tobacco Institute and other industry controlled organizations. Lawyers assisted in contracting outside scientists and in generating scientific studies designed to yield evidence beneficial for litigation purposes and the public relations positions of Defendants. U.S. PFF, § IV.A(4).

375. Defendants now argue that ETS involved nothing more than a public exchange of scientific opinion, yet had Defendants truly been interested in participating in a public scientific debate on the issue, their ETS efforts would have been led by scientists, not lawyers. Indeed, the controlling role played by Defendants' lawyers in screening outside

scientists to assist the industry led Sharon Boyse, a scientist for BATCo, to lament that the "excessive involvement of external lawyers at this very basic scientific level is questionable," and that such an "approach may appear to be somewhat less than honest to many scientists." 401247331-7336 at 7335.

2. Defendants Sought To Undermine Legitimate Scientific Research Showing A Link Between Environmental Tobacco Smoke And Disease

376. That Defendants were not motivated by an open scientific debate about the health effects of ETS was further evidenced by their efforts to undermine the science of ETS rather than contribute to it. Defendants avoided conducting research into the issue of whether ETS adversely affected the health of non-smokers, as evidenced by the admission of Philip Morris researchers that they were not making either a qualitative or quantitative contribution to understanding the link between ETS exposure and disease. 2021181919-1920. Instead, part of the industry's strategy was to attack the credibility of the evidence establishing the link between ETS and disease. The industry's goal, of course, was to "keep the controversy alive." 401247331-7336 at 7331.

377. The primary problem Defendants faced, however, was the difficulty in getting qualified scientists to speak for the industry, particularly scientists whose credibility were not tarnished by the fact they were paid by the industry. 2021183691-3692. Indeed, one industry document complained that the "lack of knowledgeable, credible 'white coats' willing to speak for the industry is particularly debilitating." 2021181194-1195 at 1194. Nevertheless, as set forth in more detail in the United States' proposed findings of fact, the lack of qualified scientific support did not stop Defendants from trying to undermine the scientific evidence establishing the harmful nature of ETS. These efforts included utilizing industry lawyers to

establish a stable of scientific witnesses and consultants, such as through the "White Coat Project", who were predisposed to support the industry's position on ETS; the use of CIAR and other front organizations, as well as specially designed symposia and scientific conferences, to produce favorable science; and lobbying for the creation of new scientific standards that would minimize the importance of statistical evidence showing a link between ETS and disease. U.S. PFF, § IV.A(4).

378. A good example of Defendants' strategy can be found in their effort to undermine a 1981 study by Takeshi Hirayama which found that non-smoking wives of heavy smokers in Japan experienced a higher risk of lung cancer. Takeshi Hirayama, "Non-Smoking Wives of Heavy Smokers Have a Higher Risk of Lung Cancer: A Study from Japan," 1981 British Medical Journal 183. While the industry's International ETS Management Committee sponsored the new study to undermine the earlier Hirayama study, Philip Morris scientist Thomas Osdene and BATCo scientist Sharon Boyse favored using CIAR as a "cover" for the project to hide industry involvement. 202354449-4449; 507974107-4109.

379. Yet the industry was integrally involved in the project. While the industry used three Japanese scientists to work on the study, it was supervised by then Covington & Burling senior scientist Chris Proctor, currently Head of Science and Regulation for BATCo. Furthermore, industry consultant Peter N. Lee actually did the statistics, R.J. Reynolds conducted the analysis, and Philip Morris scientist Robert Pages reviewed and commented on the draft report. The Japanese scientists eventually decided to distance themselves from the study and did not want it published because of concerns about errors in Lee's calculations. The industry applied some pressure to one of the Japanese scientists, who eventually agreed to have his name appear as an acknowledgment. Once the project was complete, the industry,

with the assistance of Covington & Burling, sought to disseminate the study publically as evidence that the case had not yet been proven that ETS adversely affected the health of non-smokers. 2025488374-8375; 2028372583-2596; 2023544546-4546; 2028372914-2915; 2501003237-3242; 2501003235-3235.

380. Despite trying to discredit the science establishing a link between ETS and disease, Defendants internally recognized the validity of studies indicating such a link, including the Hirayama study. 2050987570-7571; 1002641904-1907. Defendants also suppressed their own research on ETS when it appeared that the results would be unfavorable to their position. 2023223372-3383 at 3377-3378. Thus, the evidence clearly establishes that Defendants had no interest in a public and honest scientific debate on ETS that they now claim to have been the case.

3. Defendants' Conduct On Environmental Tobacco Smoke Is A Continuation Of Their Fraud On The Public Denying The Link Between Smoking And Health

381. Defendants' conduct on the ETS issue is significant because it represents a continuation of their decades-long fraud on the public denying the adverse health effects of smoking. While Defendants claim in their proposed findings that there is no threat of any future fraudulent conduct since they now admit that smoking may be dangerous to one's health, JD. PFF, p. 13, ¶ 19, such an argument is belied by their complete and total denial of any link between ETS and disease. Indeed, Defendants continue the fraud through their own proposed findings by arguing that there remains an open controversy today, JD. PFF, Chap. 7, § II.D, despite the great weight of independent scientific literature that establishes otherwise.

382. Defendants attempt to support their argument by citing to the testimony of the United States' own experts. For example, Defendants repeatedly cite to the deposition

testimony of the United States' expert, Dr. Michael Weitzman, to claim that there is an open controversy with respect to the link between ETS and childhood illnesses. Dr. Weitzman's expert report in this case explained that substantial epidemiological evidence exists to show a link between ETS and certain childhood diseases. Expert Report of Michael Weitzman in Philip Morris, Inc. v. United States. In their proposed findings, Defendants distorted Dr. Weitzman's testimony by taking it out of context, including, but not limited to, the following:

- According to Defendants, Dr. Weitzman testified that he had not concluded that there existed a causal relationship between ETS and certain childhood diseases. JD. PFF, p. 579, ¶ 1196. In reality, Dr. Weitzman's concluded that the overwhelming epidemiological evidence showed that there was a causal relationship of some sort between ETS and these diseases. Expert Report of Michael Weitzman in U.S. v. Philip Morris.

- Defendants claim that Dr. Weitzman conceded that "legitimate grounds for continued scientific skepticism" exist as to whether ETS exposure causes cognitive or behavioral deficits in children. JD. PFF, p. 580, ¶ 1197. The cited portion of the deposition transcript reveals that Defendants are relying upon a portion of a draft article which Defendants' counsel read into the record. In their proposed findings, Defendants fail to acknowledge the preceding portion of the quote stating that "both animal model and human epidemiological data clearly point to a causal relationship between prenatal tobacco exposure and adverse behavioral and neurocognitive effects on children." Deposition of Michael Weitzman, U.S. v. Philip Morris, April 30, 2002, 245:12-16. Furthermore, with respect to the issue of scientific skepticism, Dr. Weitzman was not testifying that alternative interpretations are legitimate ("My read of this is, yes, maybe the earth isn't round"), but only that further research could be done to investigate alternative interpretations. Id. at 248:2-4.

- Defendants also cite to Dr. Weitzman's testimony to support their claim that certain government agencies – in particular, the Environmental Protection Agency's Children's Health Protection Advisory Committee Science and Research Group – remain skeptical about the link between ETS and adverse health of children. JD. PFF, p.580, ¶ 1197. Dr. Weitzman's testimony, however, provides no basis at all to support any claim that there is skepticism within government agencies. Instead, Dr. Weitzman only agreed that the Science and Research Group had not yet listed ETS as a possible environmental factor for developmental and neurological problems in children. But the failure to list it as a factor does not equate skepticism. Indeed, Dr. Weitzman's testimony shows that the Science and Research Group

does at least suspect that such a relationship exists, as he has been asked by the group to research the issue. Deposition of Michael Weitzman, U.S. v. Philip Morris, April 30, 2002, 196:9-16.

- According to Defendants, Dr. Weitzman acknowledged that a large number of factors could confound the analysis of the causal relationship between ETS and childhood cognitive development. JD. PFF, p.580, ¶ 1198. Dr. Weitzman, however, actually deemed the comment of Defendants' counsel to this effect to be a "crude analysis." He further testified that during his studies, the confounding factors dropped out when he applied a "home scale," which took into consideration these other factors, "but the independent association with tobacco use didn't drop out." Deposition of Michael Weitzman, U.S. v. Philip Morris, April 30, 2002, 201:22 to 202:4.

- Defendants claim Dr. Weitzman acknowledged that there is a "healthy discussion" about making causal evaluations with epidemiologic methods. JD. PFF, p.583, ¶ 1204. To be precise, Dr. Weitzman actually testified that "there is healthy discussion about how to refine the scientific process and the interpretation of science." He further clarified: "I just want to make sure that it doesn't read as though what we are suggesting is that because there is debate, one can't rely on epidemiology." Deposition of Michael Weitzman, U.S. v. Philip Morris, April 30, 2002, 95:10-18.

383. Furthermore, Defendants' argument in their proposed findings of fact that the science is unsettled about the link between ETS and childhood illnesses contradicts public statements of several Defendants. For example, on their websites, Philip Morris (http://www.philipmorrisusa.com/health_ issues/secondhand_smoke.asp), R.J. Reynolds (http://www.rjrt.com/TI/TIsecondhand_smoke.asp), Brown & Williamson (http://www.brownandwilliamson.com/Index_sub2.cfm?ID=16), and BATCo (http://www.bat.com/oneweb/sites/uk__3mnfen.nsf/vwPagesWebLive/3ED57411BE0B727880256BF400033193?opendocument) acknowledge that scientific studies support efforts to minimize exposure of children to ETS in order to reduce incidences of asthma, bronchitis, middle ear infection, and Sudden Infant Death Syndrome, and they encourage smokers not to smoke around infants or children.

384. The evidence establishes that Defendants are not interested in finding out the truth about the causal relationship between ETS and health. Instead, they have embarked upon a coordinated effort to undermine the great weight of scientific evidence showing such a causal relationship, while all along maintaining that the controversy remains an open one.

B. Actions By Agencies Of The United States To Study The Risks Of And Develop Policies On Environmental Tobacco Smoke Are Irrelevant To A Determination Of Whether Defendants Have Acted Fraudulently

385. In their proposed findings, Defendants discuss the efforts of several agencies of the United States in studying and addressing public health concerns raised by ETS exposure, including the efforts of the Occupational Safety and Health Administration ("OSHA") and the EPA. They further contend that the United States' efforts to study and address concerns about the link between ETS and disease were driven by policy rather than science. JD. PFF, Chap. 7, § II.B. Yet the efforts of the United States to address this public health concern are completely irrelevant to the claims in this case. Instead, the issue concerns Defendants' own knowledge and actions, and their arguments about the United States' ETS efforts are nothing more than a red herring in an attempt to deflect attention away from their own fraudulent conduct.

386. Defendants again claim that they have merely "expressed valid opinions and viewpoints on the scientific literature relating to ETS in connection with actions that governmental agencies and affiliates have undertaken to formulate proposed rules or policies regarding ETS." JD. PFF, p. 556, ¶ 1141. Yet, as discussed herein and explained in detail in the United States' proposed findings, U.S. PFF, § IV.A(4), Defendants have not participated in a purely scientific debate on ETS. Rather, out of concerns for their own profits,

Defendants have embarked upon a campaign of spreading deception and doubt about the health effects of ETS, despite the great weight of scientific literature showing otherwise.

1. The United States' Policy On Environmental Tobacco Smoke Has Been Driven By Science

387. Defendants' argument that the United States' efforts in the area of ETS have been driven by policy rather than science is absurd. JD. PFF, Chap. 7, § II.B. It is the science that portrays ETS as a cause of disease, not the United States. For example, the 1986 Surgeon General's Report concluded that ETS caused disease in non-smokers. Rather than merely being a statement of policy, the 1986 Report represented the work of over sixty physicians and scientists from the United States and abroad. Thus, the United States' policy clearly is science driven, not the other way around. The Health Consequences of Involuntary Smoking: A Report of the Surgeon General (1986).

388. As evidence of a "concession" on the part of the United States that policy might be driving the science, Defendants selectively quote from a July 31, 1992 letter from EPA Administrator William Reilly to Congressman Thomas Bliley. JD. PFF, p. 555, ¶ 1139. In so doing, they ignore the parts of the document that actually prove otherwise. Indeed, Reilly emphasized that, as Administrator of the EPA, he had "a strong commitment to ensuring that agency decisions are based on sound science." With respect to work being performed on the EPA's report assessing the risk of ETS, Reilly explained:

> We will scrupulously avoid situations in which policy considerations might distort conduct, evaluation or presentation of the science and we will ensure that the development of policy is guided by an appropriate level of scientific information.

> In the case of ETS we will take all necessary steps to ensure that the Agency's risk assessment continues to be developed objectively and that the comments of the Science Advisory Board are fully considered when we finalize this document. Once I have approved the final risk assessment the Agency will evaluate the content of the policy guide to ensure that it is fully consistent with the best available evidence.

389. July 31, 1992 letter from EPA Administrator Reilly to Congressman Bliley.

Thus, far from proving that the United States allowed policy to control the science of ETS, this document establishes the opposite.

2. Defendants' Devised A Scheme To Undermine The Science And Credibility Of The EPA's Risk Assessment

390. To support their claim that they have committed no fraud with respect to ETS, Defendants make much of the fact that a court vacated portions of the EPA's 1993 Risk Assessment on ETS. JD PFF, Chap. 7, § II.B.2. Yet the validity of the EPA's Risk Assessment on ETS is irrelevant to the claims before the Court, which address Defendants' own fraudulent conduct in the form of a coordinated effort to attack and undermine the credibility of the scientific literature establishing the link between ETS and disease. The mere fact that Defendants opposed the EPA's risk assessment is not, in and of itself, the basis for the United States' claim in this case. Moreover, the court decision upon which Defendants rely was vacated recently on appeal for lack of subject matter jurisdiction. See Flue-Cured Tobacco Coop. Stabilization Corp. v. U.S. Environmental Protection Agency, 313 F.3d 852 (4th Cir. 2002). When a federal court acts on matters over which it has no subject matter jurisdiction, the court acts ultra vires. See Steel Co. v. Citizens for a Better Environment, 523 U.S. 83, 101-02 (1998). Thus, the trial court opinion addressing the substance of the EPA Risk Assessment carries little, if any, probative value, particularly for this case.

391. Furthermore, although Defendants themselves criticize the validity of the EPA Risk Assessment, they fail to acknowledge that many studies performed by entities other than the United States government reached conclusions substantially similar to the EPA Risk Assessment. These studies included works by the Australian National Health and Medical Research Council (The Health Effects of Passive Smoking (1997)), the California Environmental Protection Agency (Health Effects of Exposure to Environmental Tobacco Smoke (1997)), the Scientific Committee on Tobacco and Health of the United Kingdom (Report of the Scientific Committee on Tobacco and Health (1998)), and the World Health Organization ("Multicenter case-control study of exposure to environmental tobacco smoke and lung cancer in Europe", 90 Journal of Nat'l Cancer Inst. 1440 (1998)). The study of the World Health Organization's International Agency for Research on Cancer ("IARC") was particularly significant, given Defendants' belief that IARC had "a solid reputation" and that it was "virtually unassailable." 2501344184-4188 at 4184.

392. Moreover, consistent with the EPA Risk Assessment, many organizations have concluded that ETS represents a health hazard to non-smokers, including the American Cancer Society (Cancer Facts & Figures 2002 31 (2002)), the American Medical Association (AMA House of Delegates, Environmental Tobacco Smoke (ETS), House Policy H-490.936 (established 1994; reaffirmed 1999, 2000)), the American Heart Association (2002 Heart and Stroke Statistical Update 1, 21-22 (2001)), the American Lung Association (Fact Sheet: Secondhand Smoke (September 2000)), and the American Academy of Pediatrics ("Tobacco's Toll: Implications for the Pediatrician," 107 Pediatrics 794 (April 2001)).

393. Although the conduct of the United States in performing its assessment of the risks of ETS is not relevant to the issues involved in this case, the conduct of Defendants in

response to the EPA report certainly is. Defendants conducted a campaign to undermine the credibility of the report and of the EPA itself. For example, prior to the completion of the EPA Risk Assessment, Defendants organized a symposium on ETS in 1989 at McGill University in Montreal, Quebec. Philip Morris planned its format to ensure that conclusions reached by participants would favor Defendants' position on ETS exposure. Defendants planned the symposium to "neutralize" the Risk Assessment then being conducted by the EPA. 2023034633-4637; 2500048508-8515.

394. In the summer of 1990, consultants were paid to prepare editorials comparing the results of the McGill Symposium to the public draft of the EPA Risk Assessment; many of the editorials submitted were published. TI09911997-2033.

395. Philip Morris, in particular, was committed to keeping the "controversy alive" when attacking the EPA Risk Assessment. Philip Morris crafted a plan to discredit the EPA generally and the Risk Assessment in particular by, among other things, attacking the EPA with litigation; going to the media with charges of EPA corruption, excesses, and mistakes unrelated to tobacco; and approaching the executive branch to get risk assessments banned from regulatory activities. 2073778581-8596.

396. The Tobacco Institute also got involved in the campaign against the EPA Risk Assessment by creating a media plan with the stated objective of counter-balancing claims that ETS exposure demonstrated a health threat to non-smokers. The Tobacco Institute organized and funded the so-called "Truth Squad," a group of scientific witnesses that made media appearances (as well as provided legislative testimony) on ETS exposure issues throughout the United States. The Truth Squad's activities were determined by the ETS strategy developed by Defendants to further the goals of the Enterprise and focused on the

work of the EPA. During the media tours, members of the Truth Squad would talk about their purported areas of ETS expertise. Some of the interviews, or excerpts, were televised and some broadcast on the radio. Members of the Truth Squad also wrote editorials and opinion pieces on indoor air quality issues for the purpose of undermining the EPA, often times failing to mention that their work was being funded by the industry. TI01521526-1528; TITX0038250-8261; TIMN0031021-1024; Deposition of Brennan Dawson, U.S. v. Philip Morris, July 1, 2002, 61:11-66:11.

397. In fact, the Tobacco Institute paid numerous scientific witnesses for written submissions attacking the EPA Risk Assessment and other legitimate scientific studies identifying ETS as a cause of disease, including lung cancer. For example, on January 11, 1993, the Tobacco Institute paid scientific consultant Gio Gori $4,137.50 to write an Op-Ed page submission on the Risk Assessment for the Wall Street Journal (the Journal declined to publish Gori's work). On April 10, 1993, the Tobacco Institute paid Gori $4,000 to write a letter to Lancet, disputing an editorial that had found that the Risk Assessment provided a firm regulatory basis for increased social action to minimize the public's exposure to ETS. TIMN0435220-5272.

398. The Tobacco Institute also paid Gori to attack the Risk Assessment at meetings. In March 1994, at a Society of Toxicology Meeting in Dallas, Gori criticized EPA administrators and scientists as being predisposed. TIMN0435220-5272; 2028446360-6371.

399. In short, with respect to the EPA Risk Assessment, Defendants were not interested in participating in any public scientific debate. Instead, they conducted a campaign to discredit the EPA and undermine its conclusions, despite the strong scientific evidence demonstrating a link between ETS and disease.

3. Defendants Devised A Scheme To Undermine The OSHA Rulemaking Process And Bring It To A Halt

400. Defendants also discuss actions by OSHA in their proposed findings to support their contention that their own conduct related to ETS did not amount to fraud. They make much of the fact that OSHA discontinued its proposed rulemaking process on indoor air quality that would have created a national standard for restricting smoking in the workplace, suggesting that OSHA's decision to withdraw such a rule was the direct result of the industry's opposition to it. JD PFF, Chap. 7, § II.B.1. As with the conduct of the EPA and its Risk Assessment, OSHA's conduct while considering a rule on workplace smoking is completely irrelevant to this case. The fact that Defendants opposed OSHA's proposed rule does not serve, in and of itself, as a basis for the United States' claim.

401. Nevertheless, Defendants make certain misleading statements in their proposed findings about OSHA that require a response. Specifically, relying upon selective statements made in a brief the Department of Labor filed in another case, The Secretary of Labor's Response to ASH's Petition for a Writ of Mandamus, In re Action on Smoking and Health, Case. No. 01-1199 (D.C. Cir., Aug. 10, 2001), Defendants contend that OSHA accepted their scientific input criticizing an assumption upon which the proposed rule relied. The assumption was that workplace exposures to ETS were, on average, equivalent to exposures in the home found in spousal studies establishing a link between ETS and disease. See 59 Fed. Reg. 15968, 15993-94 (April 5, 1994).

402. It is true that OSHA eventually concluded that certain assumptions made in 1994 when it first proposed the rule no longer appeared valid at a later date. Yet there is nothing in the Department of Labor brief to suggest that Defendants' repeated denials of any link

between ETS and disease resulted in OSHA's conclusion. Rather, the basis for OSHA's conclusion about the validity of its original assumption was explained as follows:

> There is no longer any basis to believe that ETS exposure conditions in workplaces are, on average, similar to those reflected in studies of residential exposures during the 1980s and early 1990s. In fact, the evidence strongly suggests that ETS exposure levels have declined substantially in workplaces as a result of restrictive smoking policies implemented during the last decade.

403. The Secretary of Labor's Response to ASH's Petition for a Writ of Mandamus, In re Action on Smoking and Health, Case. No. 01-1199 (D.C. Cir., Aug. 10, 2001), at 12 (emphasis added).

404. Given that Defendants vociferously opposed state and local smoking bans around the country, arguing that there was no link between ETS and disease, it was highly unlikely that their denials of a health association had any influence on OSHA's decision to end its rulemaking process. Indeed, nothing in the Department of Labor brief upon which Defendants rely suggests that OSHA or the United States doubts the existence of an association between ETS and disease. To the contrary, the Department of Labor expressly stated in the brief that "[t]here is no question that the regulation of ETS involves human health and welfare," id. at 17, and that "[h]ealth risks arising from ETS exposure are likely to be concentrated in certain jobs and industries." Id. at 18. Therefore, Defendants overstate the role they played in providing assistance to the OSHA rulemaking process.

405. Moreover, as with the EPA Risk Assessment, Defendants' involvement in the OSHA proposed rule on indoor air quality was anything but a mere participant in an open scientific debate. Instead, Defendants developed a behind the scenes strategy to defeat the rule. This strategy again included disputing the existing scientific evidence establishing a

link between ETS and disease with the goal of keeping the "controversy" open. 2023329411-9457; 2023895116-5169; 87205733-5737.

406. Defendants' strategy, which they carried out, also included recruiting scientists and other witnesses to testify or submit commentary favorable to the industry's position. In fact, the strategy included having the Tobacco Institute draft and review the actual statements that witnesses, seemingly unaffiliated with the industry, would submit in opposition to the OSHA rule. TIDN0025272-5274; TIDN0025289-5289; 512046742-6745; TIDN0025286-5286; TI12000221-0223.

407. In addition, rather than provide OSHA with useful information to allow it to arrive at an appropriate rule on indoor air quality, Defendants' strategy involved a plan to overload OSHA with such a great number of submissions in order to grind the rulemaking process to a halt. In particular, the goal of Philip Morris was to generate 100,000 to 200,000 comment letters before the rulemaking comment deadline in order to "put the bureaucratic machinery on overload" since "OSHA must review every one of the comments it receives before it holds hearings." Philip Morris also expected help from others in the industry when it boasted: "If we generate as many comments as we intend to, and RJ Reynolds pitches in with still more, [then] they won't have a prayer of making their deadline – and that's good news for us." 2040235946-5949 at 5947.

408. In sum, Defendants were not interested in participating in any public scientific debate on indoor air quality when it launched its attack on OSHA's proposed rule. Rather, their goal was to continue disputing the scientific evidence establishing a link between ETS and disease in order to "keep the controversy alive," while at the same time doing their best to bring the orderly rulemaking process to a halt.

VIII. UNITED STATES' RESPONSE TO CHAPTER EIGHT

A. The United States' Claims Against CTR And The Tobacco Institute Are Not Rendered Moot By The Dissolution Of CTR And The Tobacco Institute

409. Defendants contend that two Defendants in this litigation, CTR and the Tobacco Institute, have been dissolved, and therefore the United States' claims with respect to CTR and the Tobacco Institute are rendered moot. JD. PFF, ¶¶ 1209, 1247, 1251.

410. In its Preliminary Proposed Findings of Fact, the United States has demonstrated that the Defendants, including their employees and agents, established an association-in-fact enterprise that functioned and operated in a coordinated manner and as a continuing unit for more than forty-five years. The shared goals of the Enterprise were to preserve and enhance the tobacco industry's profits and to avoid adverse liability verdicts in litigation in the face of the growing body of scientific and medical evidence about the health effects and addictiveness of smoking. U.S. PCL, pp. 9-18; U.S. PFF, §§ I.B., III, IV.A., IV.B., IV.C., IV.F., VII.

411. The Enterprise operated through formal and informal structures as well as through other means. CTR and the Tobacco Institute, two Defendant members of the Enterprise, were just two of the formal structures jointly created and funded by other Defendant members of the Enterprise to help execute the strategy devised by the Defendants to achieve their shared goals. U.S. PFF, §§ I.B., I.C.

412. Defendants used various other entities, structures, and mechanisms to coordinate their activities, to further the scheme to defraud, to ensure continued adherence to the joint strategy, and to enable the Enterprise to respond as new threats to the industry arose. These structures and mechanisms included, but were not limited to, the Committee of Counsel; Ad Hoc Committee; Center for Indoor Air Research; industry research committees, industry law

or legal committees, industry public relations committees, and industry technical committees; various foreign committees, conferences, and seminars; industry organizations both in the United States and abroad; and formal and informal agreements among various Defendants. U.S. PFF, § I.

413. Other evidence of the Enterprise included coordination of activities; a community of interest and objectives; the interlocking nature of the scheme to defraud; the overlapping nature of the wrongful conduct; direct communications between and among members of the Enterprise; and parallel racketeering acts. U.S. PCL, §§ I and II.

414. CTR and the Tobacco Institute are only two of the many structures and mechanisms that are direct evidence of the RICO Enterprise. While CTR and the Tobacco Institute were important members of the Enterprise, they were not the Enterprise itself. As a matter of law, the dissolution of CTR and the Tobacco Institute in the late 1990s neither insulates these entities from suit nor undermines the claims at issue here. See U.S. Reply to JD. PCL, § VI.

415. Moreover, even if dissolution was any consequence to the United States' claims, CTR and the Tobacco Institute are only partially dissolved, not completely defunct. JD. PFF, ¶¶ 1328-1338, 1388-1393; U.S. PFF, § I.G.(1).

416. CTR continues to defend itself in litigation and to assist in the defense of tobacco companies and CTR's other members. JD. PFF, ¶¶ 1216, 1336. CTR's continuing activities include withholding documents from production and asserting claims of attorney-client privilege, joint defense privilege, and work product protection over them. CTR also continues to employ personnel that it deems reasonably necessary to conduct litigation-related activities. U.S. PFF, § I.G.(1); JD. PFF, ¶ 1329.

417. The Tobacco Institute also continues to defend its litigation interests and engage employees for purposes of directing and supporting its defense of litigation. U.S. PFF, § I.G.(2); JD. PFF, ¶¶ 1384, 1388, 1393.

418. Defendants remark, "Three defendants in this case, CTR, BATCo, and Philip Morris Companies, Inc. were never members of TI." JD. PFF, ¶ 1343. Even if membership in the Tobacco Institute were a legal prerequisite to being a member of the Enterprise – which it is not (see U.S. PCL, pp. 9-15) – Defendants' statement is nevertheless inaccurate.

419. First, the Tobacco Institute and CTR had various interactions with each other, shared various Defendant-members, and worked in tandem to fulfill the fraudulent purposes of the Enterprise; indeed, the Tobacco Institute often publicized CTR's activities in furtherance of the scheme to defraud. U.S. PFF, § IV, ¶¶ 130, 132; U.S. PFF, § I, ¶ 263; TIMN0125189.

420. Second, Philip Morris Companies, though not a formal member of the Tobacco Institute, nevertheless participated in the affairs of the Tobacco Institute, and sat on the Board of Directors of the Tobacco Institute at the time of its dissolution. U.S. PFF, § I ¶ 327.

421. Third, BATCo, though not formally a member, nevertheless participated through its subsidiary, and later affiliate, Brown & Williamson. U.S. PFF, § I, ¶ 67 (BATCo report noted that, with regards to CTR, "our contact there is through B&W.").

422. Defendants also argue that there was no Enterprise because, in the case of the Tobacco Institute, Defendants allegedly were never in the same room at the same time. JD. PFF, ¶ 1342 ("Over its 41 year history (1958-1999), a total of 24 companies were members of TI at various times."); JD. PFF, ¶ 1343 ("There have been extended periods of time during which one or more of the [Defendants] in this case were not members of TI."); JD. PFF, ¶

1343 ("[O]f the six American cigarette manufacturers that have been named as defendants in this case, during the 1958-1999 lifetime of TI, all six were members of TI only during the years 1958-1961 and 1963-1966. Three defendants in this case, CTR, BATCo, and Philip Morris Companies, Inc. were never members of TI.").

423. Of course, even if Defendants' statements were accurate, it is nevertheless immaterial because it is well-settled that an Enterprise may exist even if its membership changes over time or if certain defendants are found by the fact finder not to have been members at any time. See U.S. Reply to JD PCL, § VI.

B. The United States' Claims Against CTR And The Tobacco Institute Are Not Barred By Waiver, Equitable Estoppel, Or Laches

424. Defendants maintain that, because the activities of CTR and the Tobacco Institute "were conducted in public with the full knowledge of the government," the claims related to CTR and the Tobacco Institute are barred by the doctrines of waiver, equitable estoppel, and laches. JD.PFF, ¶ 1210. As set forth in the United States' Reply to Joint Defendants' Proposed Conclusion of Law, these equitable defenses are not available as a matter as law. U.S. Reply to JD. PCL, § X.

425. Some activities were conducted in public with the knowledge of the United States. Defendants did publicly announce the formation of the Tobacco Industry Research Committee ("TIRC") in January 1954 in its "Frank Statement to Cigarette Smokers." JD. PFF, ¶¶ 1219, 1222-1223. In fact, this action constituted the first charged racketeering act in furtherance of Defendants' scheme to defraud. U.S. PFF, § V, p. 1251 (the Frank Statement contained false promises and misrepresentations regarding safeguarding the health of smokers, fraudulent promises regarding support of independent, disinterested research into smoking and health, and fraudulent promises regarding dissemination of these research

results to the public); U.S. PFF, § IV.A. As detailed in the United States' Preliminary Proposed Conclusions of Law, such half-truths and material omissions are actionable under the mail and wire fraud statutes. U.S. PCL, § I.F.3.

426. While it is also true that four National Cancer Institute researchers served on CTR's Scientific Advisory Board from 1963 to 1986, JD. PFF, ¶¶ 1268, 1273; that employees of United States government agencies reviewed some CTR grant applications, JD. PPF, ¶ 1244; that researchers with good reputations received CTR grants-in-aid, JD. PFF, ¶¶ 1226, 1237, 1238; and that publications stemming from CTR-funded research have been cited in reports of the United States Surgeon General and the Food and Drug Administration, JD. PFF, ¶¶ 1292-1295, this information has no relevance to whether Defendants were participating in the conspiracy and committing the acts of which they are accused. The fact that United States' scientists and agencies had contact with CTR and cited studies funded by CTR in publications does not minimize, much less eliminate, CTR's role in Defendants' scheme to defraud and the activities in furtherance of the Enterprise.

427. The research funded by Defendants through CTR grants, while conducted by reputable scientists, was not useful in answering the questions about smoking and disease and allowed Defendants to continue to assure their customers and the public that the companies were responsible, interested in the well being of smokers, and conducting independent research.

428. In reality, CTR did not fulfill Defendants' repeated promises to "fund independent scientific research into matters concerning tobacco use and health, and in particular into the causes of diseases associated with tobacco use." JD. PPF, ¶ 1214. CTR developed a grants-in-aid program that funded research focused on basic processes of disease and distant from, if

not completely irrelevant to, evaluating the immediate and fundamental questions of the health effects associated with smoking – the very subject that the industry had pledged to pursue through CTR. U.S. PFF, § I, ¶¶ 48-50; 00552837-2839 at 2837 (B&W's Addison Yeaman wrote, "Review of SAB's current grants indicates that a very sizable number of them are for projects in what might be called 'basic research' without specific orientation to the problem of the relationship of the use of tobacco to human health."); U.S. PFF, § I, ¶¶ 51, 52 (U.K. scientist Geoffrey Todd wrote, "CTR supports only fundamental research of little relevance to present day problems," and "CTR has become a backwater of little significance in the world of smoking and health."); U.S. PFF, § IV, ¶ 2008 ("Most of the T.I.R.C. research has been diffuse and of a broad, basic nature not designed to specifically test the anti-cigarette theory."); 03675272-5277; 105408490-8499 at 8495 ("[T]he SAB of TIRC is supporting almost without exception projects which are not related directly to smoking and lung cancer.).

429. CTR was not established for entirely legitimate research purposes. Its principal function was as an elaborate public relations vehicle for the tobacco industry. U.S. PFF, §§ I.B.(3) and IV.F.(2). The existence of CTR allowed Defendants to make false and misleading assertions that they were funding and conducting independent research; it allowed them to claim that there was still an open question on causation, nicotine's addictiveness, and second hand smoke; and it allowed them to fund self-serving studies and sympathetic scientists for litigation defense.

430. Notwithstanding Defendants' assertions, the activities of CTR were not "conducted in public with the full knowledge of the government." JD. PFF, ¶ 1210. The American public – the object of Defendants' scheme to defraud – was not aware of CTR-

funded projects shielded behind the Scientific Advisory Board grants, such as CTR Special Projects. As discussed in the United States' Preliminary Proposed Findings of Fact, CTR Special Projects furthered the Enterprise's aims in numerous ways; they were orchestrated and overseen by industry attorneys, designed to court favorable witnesses, and funded tobacco industry goal-oriented research. U.S. PPF, §§ I, IV.A. and IV.F. The Tobacco Institute repeatedly and knowingly purveyed the falsehood that CTR's activities were conducted with complete freedom and autonomy. Defendants admit that CTR Special Projects were funded "as an accommodation to its members companies" JD. PFF, ¶ 1255 (emphasis added). This hardly comports with any alleged independent nature of CTR. The Tobacco Institute aided and abetted the industry by passing off CTR-funded Special Projects to the public as independent research; the Tobacco Institute did the same with lawyers' special projects. TIMN0125189-5189.

431. The United States and the American public were also not aware that CTR grant applications related to research into nicotine and the central nervous system were screened by lawyers instead of Scientific Advisory Board members and suppressed in a effort to prevent, among other things, regulation by the Food and Drug Administration of tobacco, and cigarettes, as a drug. U.S. PFF, § IV, ¶¶ 1998-2007; 1003724290-4291. In fact, CTR's attorney Ed Jacob advised a total embargo on all work associated with the pharmacology of nicotine. 110083647-3650. Such actions were undertaken in furtherance of the affairs of the Enterprise and the scheme to defraud.

432. Defendants erroneously maintain that the United States co-funded numerous Special Projects with CTR. JD. PFF, p. 603; JD. PFF, ¶¶1259-1260. There is a wide gulf between co-funding and publication acknowledgment. Acknowledgment of support from

two or more sources in a publication does not mean the sources co-funded, jointly funded, or cooperatively funded a researcher or research project. A researcher's acknowledgment more likely means that the results of separate grants funded by separate entities ended up being published together in one work. Deposition of Michele Bloch, United States v. Philip Morris, June 27, 2001, 247:13-248:10. While a researcher may have applied for and received grants from both the United States and the tobacco industry at the same time, the United States has never co-funded projects with the tobacco industry. Deposition of Michele Bloch, United States v. Philip Morris, February 14, 2002, 1525:16-1526:19. The Department of Health and Human Services has never engaged in jointly funded cancer research, tobacco research, epidemiological studies, or any other type of smoking and health research with tobacco companies. Deposition of Michele Bloch, United States v. Philip Morris, June 27, 2002, 58:12-59:4.

433. To support their argument that "The Government Co-Funded Numerous CTR Special Projects And Was Otherwise Aware of Them," see JD. PFF, p. 603, subheading 3, Defendants cite to and quote 1957 congressional testimony by Dr. John Heller, Director of the National Cancer Institute. JD. PFF, ¶ 1264. Heller's 1957 testimony cannot support Defendants' argument because, as Defendants admit, CTR Special Projects did not commence until 1966. JD. PFF, ¶ 1266.

434. Under the same subheading, Defendants also cite to and quote from a 1979 document authored by Dr. T.C. Tso of the United States Department of Agriculture. JD. PFF, ¶ 1265. However, the document does not refer to CTR Special Projects. In fact, the document states: "[CTR research] is conducted mainly through 'grants-in-aid' supplemented by contracts for research with institutions and laboratories." SM0260084-0104 at 0096.

435. Contrary to Defendants' assertion, see JD. PFF, ¶ 1242, members of CTR's Board of Directors did, in fact, have a role in scientific matters and in determining which research proposals would be funded by CTR. Numerous internal industry documents uncover the process by which members of CTR's Board of Directors approved or disapproved funding for research proposals over the years. 507875993-5993, ATX300010994-0995 (Dr. Richard Hickey); 521031101-1101, 521031106-1107 (Eleanor Macdonald); 503655086-5088 (Franklin Institute); 01336194-6195 (Drs. Duncan Hutcheon and Aviado); 521030802-0805 (Joe Janis); 01338089-8089, 86023647-3648 (Dr. Carl Seltzer); LG2000678-0679 (Drs. Charles Puglia and Jay Roberts); LG2000682-0683 (Dr. Salvaggio); LG2000705-0705 (Drs. Theodor Sterling and Harold Perry); 503655236-5237 (Drs. Duncan Hutcheon and Peter Regna).

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